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Soviet Union

Military Affairs

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Air Defense Deputy's Forced Retirement Hit

91UM0401A Moscow LITERATURNAYA GAZETA
in Russian No 7, 20 Feb 91 p 2

[Article by V. Yanelis: "Tossed Into the Circle"]

[Text] In the fall of last year the minister of defense signed an order discharging to the reserves Aviation Lieutenant General Vladimir Andreyev, deputy commander in chief of USSR Air Defense Forces. Considered a top-notch pilot and good military organizer, Andreyev was 48 years old and no one doubted his further rise in the service.

But one day Andreyev evoked the minister's dissatisfaction, disagreeing with him in the assessment of reasons behind the military aviation accident rate. The general's independent opinion did not suit the taste of the minister or that of Air Defense Commander in Chief Tretyak, and Andreyev was forced to leave the Army.

LITERATURNAYA GAZETA related this unsightly story in the hopes that justice would triumph, that Andreyev would return to the Army, and the authors of this intrigue would suffer punishment. Alas.

Then the USSR Supreme Soviet Committee on Defense and State Security came to Andreyev's defense. It presented the minister a demand that he reexamine the "Andreyev affair." The minister provided a formal reply. Then followed an appeal to the president. This too yielded no result—after all, Yazov and Tretyak were directed to reinvestigate.

The Russian committee which deals with social protection for servicemen joined with the USSR Supreme Soviet Committee. Here is an extract from the letter sent by the group of deputies to the president: "We consider it an inexcusable luxury that a 48-year-old lieutenant-general, on whose training tens of millions of rubles have been spent, finds himself out of the running. We ask you, Mikhail Sergeyevich, to find an opportunity to receive Comrade V.I. Andreyev for a personal conversation, and decide a matter of restoring justice."

The response—still another directive to Yazov to investigate. And, another formal reply to the deputies. Veterans of aviation, including V. Grizodubov, are addressing the president. They write that Andreyev is an honest, intelligent, and decent officer, that his departure from the Army is a tremendous loss and the entire matter revolves around the ambitions of the minister and air defense commander in chief. All in vain.

As in a vicious circle, any communication to the president falls on Yazov's desk. But why? Can it be that the view of committees of two parliaments means so little to the president?! Can it be we are so rich in principled, highly capable generals? That everything is going marvelously with respect to organization of the country's air defenses?!

Why is the president silent? After all, it is not simply someone's personal fate we are talking about (although that too could provide sufficient reason for intervention). We are talking about the belief in justice for thousands of servicemen who know the story of Andreyev's conflict with the command leadership and Yazov. Finally, why is no one able to break the vicious circle of irresponsibility which reigns within the personnel policies of the military department? And why do we even have parliamentary committees if the minister simply ignores them?

SGF Commissions on Referendum Formed

91UM0424A Moscow KRASNAYA ZVEZDA in Russian
16 Feb 91 First Edition p 5

[Letter by Lieutenant-Colonel A. Borovkov under the rubric "The Current Mail": "We Are in Favor of the Union"]

[Text] Precinct and district commissions to conduct the upcoming referendum on the future of the USSR have been created in the Southern Group of Forces [SGF]. Members of the commissions have begun composing and verifying complete lists of citizens of the Soviet Union who at that time will continue to belong temporarily to units and subunits of the SGF on the territory of the Republic of Hungary. However, in the near future they will be reinforcing our domestic military districts in accordance with the timetable for the withdrawal of troops. How will the servicemen be voting?

"In my opinion, the issue is a clear one for all of us," said Lieutenant General I. Mikulin, member of the military council and head of the political directorate of the SGF, at a meeting with residents of the Budapest garrison. "The Army cannot function in a state that is torn to shreds. Both the Armed Forces and our Union should be united and whole."

[Signed] Lieutenant Colonel A. Borovkov

Instructions for CPSU Units in Military

91UM0370A Moscow KRASNAYA ZVEZDA in Russian
13 Feb 91 First edition p 2

["Instructions for the Work of the CPSU Organizations in the USSR Armed Forces"]

[Text] These instructions define the special features involved in compliance with the CPSU Rules by party organizations in the USSR Armed Forces.

Party organizations in the USSR Armed Forces make up an integral part of the CPSU and are guided by its Rules, and ensure active participation by communists in the Army and Navy in implementing party policy in the field of military development and strengthening the country's defense capability. They operate within the framework of Soviet laws and other legal enactments defining the vital activities of the USSR Armed Forces, and on this

basis interact with officials and organs of military control, carry out their work using political methods, giving due consideration to the specific features of military and labor collectives and the missions they are carrying out, and cooperate with other public associations of the socialist choice and also other organizations and movements with compatible positions.

The leading CPSU organ in the USSR Armed Forces is the All-Union Party Conference. The party conferences constitute the leading organs of the party organizations in formations, military training and scientific research establishments, groups of forces and fleets, and combat arms and branches of the USSR Armed Forces. They examine the most important questions of party work, hear accountability reports and elect executive organs and control commissions, and approve the structure of executive organs and the numerical strength of their apparatus.

I. Main Directions in the Activity of Party Organizations in the Army and Navy

Army and Navy organizations of the CPSU pursue party military policy, carry out ideological-political work, and organize compliance with party decisions through the communists.

Party organizations engage in propaganda of the values of the theory of Marxism-Leninism and the achievements of progressive social thinking and explain CPSU policy in matters pertaining to the country's defense and security and the need to fulfill constitutional duties relating to defense of the socialist motherland and maintaining in military collectives an atmosphere of friendship and military comradeship and healthy interethnic relations. They help to promote a strengthening of the authority of the USSR Armed Forces and one-man command, and enhancement of the prestige of military service and the legal status of servicemen.

CPSU organizations carry out political and individual work with communists to promote increased troop combat readiness and maintain strict military and labor discipline, and concern themselves with communists being models in fulfillment of their party and military duties.

Defending the interests of communists, party organizations strive to ensure the social and legal guarantees for servicemen and workers and employees of the Soviet Army and Navy and help them to safeguard their health, honor, and dignity. In the event of violation by officials or organs of military control of the legislatively established standards and their failure to take steps to eliminate shortcomings in resolving the tasks of combat readiness, military discipline, or the material-and-everyday amenities provided for servicemen and workers and employees, party organizations and their executive organs submit their proposals to the appropriate authorities and try to have them reviewed.

Party organizations show concern for strengthening their own ranks and increasing the number of CPSU supporters in military and labor collectives, and for strengthening links with the broad masses of servicemen and workers and employees, and they periodically inform communists and nonparty people about their own work, compliance with party decisions, and proposals submitted to CPSU organizations. They make use of political means to exert influence on cadre policy in the Soviet Armed Forces and the democratization of Army life, and they are actively involved in work on and the implementation of CPSU youth policy.

Party organizations in the USSR Armed Forces operate in close contact with territorial organs of the CPSU, conduct agitation during elections for deputies who stand at positions of the CPSU, and participate in the exercise of power through their own representatives elected to the soviets of people's deputies. Together with the territorial organizations of the CPSU and the organs of soviet power they do work to consolidate the unity of the Army and the people, provide patriotic indoctrination for the population, and train youth for the defense of the country.

II. The Primary Party Organs

Primary party organizations are set up in regiments, aboard ships, in particular units and headquarters, in military training and scientific research establishments, at military enterprises, and in organizations, and also in other military structures where there are at least three party members; this is done by a decision at meetings of the communists and is registered with the appropriate party committee. With its agreement, communists from among servicemen discharged from active military duty into the reserves or retired may remain on the party rolls in that organization.

The party general meeting is the leading organ in the primary party organizations. In cases in which because of the exigencies of service it is not possible to convene a general meeting of the party organization, delegate meetings may be held. Proceeding from the specific nature of the activity of military collectives and giving due consideration to statutory and normative instructions operating within the CPSU, the functions of the executive organs of the primary party organizations (party committees, bureaus) are defined by a meeting of communists.

Primary party organizations independently resolve questions pertaining to their own structure (the creation of party groups and shop party organizations, giving the latter the rights of primary party organizations in matters pertaining to CPSU membership).

Measures adopted by party organizations are carried out in off-duty time. Councils made up of the secretaries of primary party organizations may be set up to consider common questions by party committees.

III. Party Committees

In their activities party committees act independently and have the right to represent the corresponding party organization in their relations with the command and military-political organs, and also with local party and public organizations and institutions.

During the period of their powers the party committees set up a working apparatus subordinate to them, which is maintained from the party budget, is developed in accordance with recommendations from the primary party organizations, and carries out mainly information and analytical and sociological prediction work and consultative functions. The number of plenums held is determined by the party committee itself. Party committees may have their own mass media.

1. Party Committees in Formations and Their Equivalents

Party committees in formations, military training and scientific research establishments, and directorates of districts, fleets, and branches of the Armed Forces, and also in district special units and military construction organizations, and oblast, kray, and republic military commissariats at large military garrisons, enjoy the rights of a CPSU rayon committee. By decision of higher party committees, similar rights may be extended to party committees in city military commissariats and other establishments of the USSR Ministry of Defense. Party organizations in formations and other equivalent bodies that directly unite primary party organizations in the corresponding military units are the supporting structural element of the CPSU in Armed Forces.

These party committees are elected for a period of two to three years at party conferences and are accountable to them in their work. The procedure for the election of the party committee secretary and his deputy, and of candidates for the party organ, is proposed at meetings of the primary party organizations that are united by a particular committee.

Party committees in formations and their equivalents coordinate the activity of the primary party organizations and together with them organize work to implement party policy and decisions, and submit specific military-political, social, cultural, and other matters for review by the public and the organs of military control, and help to realize them. They provide assistance for the primary party organizations in ideological-political work with communists and nonparty people and cooperate directly with the command and the military-political organs in resolving tasks related to combat readiness and military discipline.

Party committees maintain a register of communists, register primary party organizations, draw up party documents adopted in the CPSU, and inform communists and higher party organs with respect to the fulfillment of party decisions. They independently select the forms and methods for coordinating their work with the

party organizations of other military units and organizations located in any given military garrison.

When communists are given a new service assignment, presented with awards, or given promotion, the party committees may submit their own proposals to the appropriate commanders (or chiefs), based on the opinion of the primary party organization. When drawing up their recommendations, party committees give due consideration to the opinion of meetings of officers and other public Army organs.

2. Party Committees in Armies, Flotillas, Military Districts, Groups of Forces and Fleets, Combat Arms, and Branches of the USSR Armed Forces

Party committees in armies, flotillas, military districts, groups of forces and fleets, combat arms, and branches of the USSR Armed Forces are elected at conferences of the corresponding party organizations for a period of five years. For current work they elect a bureau from among their own makeup, and set up working organs. Since they enjoy the rights of an oblast party committee, the above-mentioned party committees do the following:

- draw up recommendations for party organizations with respect to compliance with CPSU congress and conference resolutions and decisions of the party Central Committee, and systematically analyze the status of party work and submit proposals to improve it;
- coordinate the work of party organizations and party committees on the most important questions pertaining to the implementation of military policy and the life and activity of military collectives, and organize training for the party aktiv;
- within the framework of democratic procedures they offer recommendations for communists and people who are not members of the CPSU on specific work sectors and in particular public activity, and help in their election or appointment;
- carry out certification for full-time workers in party committees; —help to resolve tasks associated with social and everyday amenities for servicemen and workers and employees and members of their families;
- defend the rights and interests of communists in military and labor collectives and organize a rebuff to anticommunist and antisocialist attacks;
- jointly with the party organizations carry out party work with communists and people who are not members of the CPSU in the apparatuses of staffs and directorates;
- maintain links with territorial party and other public organizations and provide assistance for them in patriotic indoctrination of the public, particularly youth.

3. The All-Army Party Committee

The All-Army Party Committee is elected by the All-Army Party Conference, which is convened at least once every five years, and is subordinate to it. At the discretion of delegates, the secretary of the All-Army Party Committee is elected at the conference or at a plenum of

the party committee. The bureau and the deputies to the secretary are elected at plenum, where the appropriate commission and group are also formed.

The All-Army Party Committee is independent with respect to its own activity in implementing Communist Party policy in the Armed Forces. On the basis of congress (or conference) decisions and the CPSU Rules it develops normative-methodological documents reflecting the specific nature of party work in the Army and Navy and resolves organizational, personnel, financial, and other questions and maintains links with the leadership in the USSR Ministry of Defense and political, public, and state organizations.

The All-Army Party Committee does the following:

- organizes compliance with decisions of the party and party organizations operating within the USSR Armed Forces;
- works on the most important issues pertaining to party building and ideological and organizational party work, informs the CPSU Central Committee of the needs and problems of communists in the Army and Navy, and tries to achieve consideration and adoption by leading party organs of decisions relating to matters raised by communists in the Army and Navy. Basing itself on the CPSU's right of legislative initiative, it defends the interests of communists in the USSR Armed Forces with respect to the minister of defense and the government and president of the country;
- studies problems and draws up proposals in the field of party work with respect to fulfillment of tasks associated with combat and mobilization readiness;
- generalizes and disseminates positive experience in party work; —takes steps to explain and implement CPSU cadre policy in a practical way, interacting in these matters with the USSR Ministry of Defense and the USSR Armed Forces Main Military Political Directorate;
- giving due consideration to the opinion of the primary party organizations, works on the structure and staffs of party organs and procedure for material support for their workers, and organizes training and retraining for cadres of party workers;
- systematically studies the status of work in the party organizations in matters pertaining to party membership and organizes registers of communists and maintains party statistics;
- cooperates with appropriate organs of public organizations in the USSR Armed Forces.

In matters pertaining to party membership and observance by communists of party, state, and military discipline and the standards of public morality, it cooperates with the party control committees.

Matters relating to the procedure for election to the CPSU, maintaining registers of communists, clerical work, party dues and financial and economic work, the holding of referendums and debates, and the status of the

party organization secretary and CPSU veterans are determined by the normative-methodological documents of the CPSU.

Control commissions in party organizations in the Army and Navy are elected at party conferences and operate in accordance with the provisions laid down for them.

* * *

These instructions on the work of CPSU organizations in the USSR Armed Forces have been confirmed by a joint plenum of the CPSU Central Committee and Central Control Commission.

They are also being circulated to party organizations in the troops of the USSR Committee for State Security, the USSR Ministry of Internal Affairs Internal Troops, and the railroad troops.

Fate of Laid-Off Navy Political Officers

*91UM0595A Moscow KRASNAYA ZVEZDA in Russian
23 Apr 91 First Edition p 2*

[Interview with Rear Admiral A. Penkin, first deputy chief of the Northern Fleet Political Directorate, by Captain Third Rank P. Ishchenko, KRASNAYA ZVEZDA correspondent; place and date not given: "There Will Be a Job for Everyone" subtitled "The Best Way to Use the Knowledge and Experience of Those Who Until Recently Headed Navy Party Organizations"]

[Text] The functions of political organs and of party organizations have been separated, the party structures in the Northern Fleet have been reorganized, and all this has resulted in the lay-off of dozens of full-time party bureau or committee secretary positions. But every such instance of reduction in personnel cannot be seen only as a sign of the times, or as proof of radical perestroika in the area of party and political work in the Army and Navy. It also hides the life of an individual officer and the future of his family. The assurances that every person staying with the military will be assigned to a new position commensurate with his knowledge and experience can be heard from the most diverse sources. However, a number of full-time secretaries expressed their anxiety concerning their indefinite future as they spoke to our correspondent.

This very question started the conversation about staff transfers and the efficiency of new structures we had with Rear Admiral A. Penkin, first deputy chief of the Northern Fleet Political Directorate.

[Penkin] It is true that the introduction of a new party structure resulted in the removal of 37 full-time party secretary positions, including those at all large antisubmarine warfare vessels and destroyers. This is just the numerical side of the problem. But there is also a human side to it. It is not that we are just re-registering party and political positions. For many officers this means a change of base and a change of occupation on which they

did not plan. Sometimes it also means an early transfer to the reserve. Can any of them remain unperturbed?

As for the position of our Political Directorate in this respect, we have been working on recommendations, we have been providing our opinion on the new structures of the leading party and political organs to the higher command. In doing all this we aimed to preserve our best people. All of it did not mean just sheer numbers. Nor were we guided by a desire to come up with an even balance. For the sake of our cause we were compelled to seek the following: We could not allow any weakening of political and party influence in one or another field of our work. For instance, we managed to defend, literally, the political departments in the rear services of large formations and at floating docks. We managed to prove convincingly that such Navy formations cannot be compared with similar ones in the Army.

[Ishchenko] But can it be, however, Aleksandr Aleksandrovich, that your primary concern lies with outward appearances anyway—you do not wish to offend anyone, you want to find a place for everyone. Does the result of all these changes, the appearance of new "combat efficient" party committees and of sociological or psychological services, unknown in the Navy until now, for instance, interest you less? Can you feel assured that a good party bureau secretary is going to be a good sociologist or psychologist? Meanwhile, no certification of the current full-time party secretaries was carried out, neither was certification of the political organ officers who are assigned to the new functions undertaken; nobody has been seriously checked for "occupational suitability"...

[Penkin] The certification you have mentioned could really help. However, I cannot agree with your reproof concerning a mechanical approach in our reassigning former party organization secretaries to new positions. The deciding factor in this is still the personal enterprise and moral qualities of the officer, his ability and skills.

At the same time I have to admit that we are meeting with certain difficulties in this task due to various reasons which do not always depend on us. At the time of this conversation, for instance, a new structure of the military political organs is being defined, and we do not know quite clearly yet where the new positions of sociologists and psychologists will be introduced. Let me outline a possible result of this. The current secretary of the Admiral Isachenkov large antisubmarine warfare vessel, Captain Third Rank Yu. Rubtsov, is supposed to fill the position of propaganda officer that was to become vacant on the same ship. He will cope, no doubt. But the problem is that this officer is also a correspondence student at the Leningrad political science institute. In the near future he will get the diploma of professional sociologist. Is it a little wasteful to use such a specialist outside his real field, to put it mildly, especially as we do not even have our own educational facilities. They might introduce the position of a sociologist- psychologist on capital ships [korabli pervogo ranga]. Then we will be

able to amend things, but still I would like, figuratively speaking, to build the new house according to the design instead of starting the design after having begun the construction.

[Ishchenko] As you look at the problem from above, so to speak, what is your opinion: Are there grounds enough to expand the issue in question and attempt to look into the future of the Navy party organizations themselves? What lies in stock for them with respect to the situation in the country and in the Armed Forces?

[Penkin] In my view there are more than enough grounds if we truly wish to avoid stagnation in our communists' work. Let us see how the situation is developing in the Navy today. Over 1,000 people left the CPSU last year. The number of unit party organizations diminished, and the number of party groups went down by almost 25 percent. This fact cannot fail to disturb us, administrators and ordinary members, communists who believe in the Communist Party and its viability. It is true that you have to look at the bright side together with the dark side: Many primary party organizations used their rights and revised their structures independently, though we have to admit that they did so under the influence of outside factors. They cut down on the number of groups and organizations that had the rights of shop committees; they left only those that were working for real. The all-service party conference confirmed the existing tendency toward a further increase in the independence of primary party organizations; therefore, we cannot exclude the possibility of more structural changes in the future, designed to improve the efficiency of party work.

People ask us more and more often if we are prepared to see organizations of other parties appearing in our units. There is no doubt that as the multiparty system is developing in our country we cannot totally exclude the possibility of organizations other than the CPSU emerging in the Navy. My personal point of view on this, however, is that I would not want to see such times. Interparty frictions and contradictions will take priority over the concern with combat readiness. But if we are speaking of the way things are at present, I do not foresee any competition for the CPSU either on ships or in our units.

Returning to the original question, I would like to conclude: The future of full-time party organization secretaries will be no different from the future of our party organizations and of the Armed Forces themselves. And that future depends primarily on all of us communists.

Further on Yazov Phone-In TV Show

91UM0596A Moscow KRASNAYA ZVEZDA in Russian
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[Article by Major General G. Kashuba and Colonel V. Chikin at the Press Center of the USSR Ministry of Defense: "Protect the Motherland...": What We Learned

From the 8,500 Letters Sent to the Television Program "Who Is Who" Featuring the USSR Minister of Defense"]

[Text] On 30 March the Central Television program "Who Is Who" broadcast live a segment in which the USSR minister of defense, Marshal of the Soviet Union D.T. Yazov, was a guest. The program desk received about 8,500 letters and telegrams. Some of these were answered in the course of the program, but what about the others? All without exception were given consideration; a decision was made on each. Written replies were sent to a clear majority of them. The minister of defense asked the newspaper to express gratitude on his behalf to all those who had responded to the program in one form or another.

A natural question: "Who is who" among the authors of the letters; what does this mail tell us?

"One can count at a minimum three generations of defenders of the Fatherland in our family. My father, Ivan Lavrentyevich Kalchenko, had fought for its freedom and independence in the battles of the Great Patriotic War. My husband, Vitaliy Sergeyevich, served in the Navy in the mid-1970's. He was directly involved in the missile nuclear submarine fleet coming into being and in ensuring the military-strategic parity. And now our son Sergey is in the Army; he is a member of a tank crew and serves in the Far East. In short, for us the Army is something that is close to us, our own. And it is the same for the majority of families. Therefore I now cannot understand those who speak about some special goals of the Army, about a military coup. Is the Army not the people? After all, these are our sons and brothers. We place our hopes in them..."

These are lines from a letter from Minsk resident Oksana Ignatyevna Stepanets. The thoughts and feelings she expressed are in keeping with the thoughts and feelings of many other people who responded to the television program. About one-third of this large and varied mail is precisely this kind of letters, expressing deep unity and spiritual togetherness between the Army and the people, and the participation of the Soviet people in the sacred endeavor of protecting the Fatherland.

Among the authors of these letters are veterans of the Great Patriotic War and labor; Afgantsy; parents of soldiers and military wives; soldiers, sailors, and officers; workers and peasants, scientists, students, and literature and arts personalities. Representatives of practically all social groups took part in this collective council on current problems related to the Army; many of them, by their own admission, have already unsuccessfully tried more than once to express their opinion through the mass media.

These letters show respect and trust for the Army, and the fact that it is being counted on. At the same time many authors express concern over the processes that are taking place in our society and touch directly upon the Armed Forces; they protest against the attempts to use the Army in the irresponsible games played by some political groups, and to pull it apart into separate

national quarters. "Unified multinational Armed Forces are the guarantee of the wholeness and freedom of our state," writes P. Samoylenko from Kiev. "We should not let the separatists turn our Army into a weapon in the power struggle."

"Like many other ordinary citizens of the Union," writes Vladimir Iosifovich Demidenko from the city of Novyy Bug in Nikolayev Oblast, "I feel pained for our Soviet Army, where our children and grandchildren are serving; it hurts me to see and to listen to the insults addressed at the Armed Forces. How could we come to this: In the press, on television, and on the theatrical stage there are people who scoff at our defenders, those in military uniform. Who are these people? Politicians who are hungry for power and are ready to tear our Motherland into small pieces, and young oafs in the press and the street who are carrying out their orders... Protect the Motherland, and let the Army remain the apple of our eye! Be patient; do not fall for provocations and malicious swipes! You are our last hope!" Among others also expressing indignation in their letters over the "unbridled campaign to discredit the Army" are N. Vashchinina from Krasnodar, L. Bagliy from Donetsk, P. Kozlova from Alma-Ata, P. Makhovka from Baryshevka settlement in Kiev Oblast, and many others.

As is known, the television program also devoted considerable time to the topic of the Great Patriotic War—this year will mark the 50th anniversary of the day the war started. This topic has also been widely reflected in the mail. P. Kuznetsov from Boronezh, V. Karpov from Moscow, and A. Zhukova from the city of Krasniy Luch in Lugansk Oblast also write about the life-giving force of patriotic ideas and heroic traditions, and of the need to use them now to the fullest extent in order to consolidate society and unite all those who hold dear the fate of the socialist Fatherland.

"Why is it that many in our country today resemble Ivans who refuse to acknowledge their roots?" asks Yu. Maslov from the city of Roshal, Moscow Oblast, meaning those who are distancing themselves from our country's past—including its heroic past related to the Great Patriotic War—and looking only for the black marks in it. "These people," says Yuriy Leonidovich, "are spitting into the well that for older generations was always a source of strength and might."

These letters prompt one to ask: Are there not such "Ivans" among us, the military, as well? It is no secret that in some units veterans of the unit are not remembered even on the eve of holidays, that many have forgotten the route to the rooms and museums of combat glory and do not know the heroic history of their unit or ship. How much further, as they say, can one take it? And is it not a good time right now, on the eve of the historic dates filled with tragedy and great heroics, to pull up the thistle of nonremembrance, invigorate the search, and conduct aggressive work to make the warriors and all our youth part of the glorious traditions of selfless service to the Motherland.

Another problem that attracted the attention of many was the progress of the military reform, implementation of the defense doctrine, and bringing the personnel, equipment, structure, and training of the Armed Forces into line with this doctrine. This is the subject raised by veteran of war and labor A. Svetlanov from Vereshchagino, V. Zhurba from Petropavlovsk-Kamchatskiy, and another 40 or so television viewers. B. Akizhanov from Alma-Ata and A. Povetkin from Novocherkassk ask whether the Ministry of Defense is drawing lessons from analysis of the combat actions in the Persian Gulf. We can add to the answer given during the program—which was by necessity short due to time constraints—that, yes, practical conclusions are being drawn, and analysis and study of materials relating to this war continue.

Many viewers are interested in the problems related to the withdrawal of our troops from Eastern Europe and Mongolia, and, first of all, the issue of maintaining the defense capabilities of the country at an appropriate level.

A considerable number of letters touch on the work of military-political organs, the conditioning role of military service, the state of discipline and law and order in the Army, and interrelationships in the military collectives. These letters offer different, sometimes diametrically opposite, points of view. Ye. Valyayeva, a teacher from Kerch, writes: "I want to thank with all my heart the commanding officer and chief of the military-political department of the military unit where my son is serving for keeping things in order there and the absence of hazing [dedovshchina]. L. Panova from Bychikha settlement in Khabarovskiy Kray writes: "Since December 1990 my grandson has served in the Air Defense Troops in the Far East. I visited him myself, and I know now how he lives and serves. Many of the bad things that are now being written about our Army are lies."

It is typical that the basis for such letters are personal observations of the authors who have visited the places where their sons serve. True, among letters from parents who have visited their sons also are some that contain facts concerning relationships that violate regulations and other violations of discipline and military order. Each of these letters will prompt an on-site inquiry, and the necessary measures will be taken.

Among the letters that in one way or the other are related to disciplinary issues are quite a few that simply repeat popular stereotypes created in the course of the anti-Army campaign by some mass media. Let us be frank: To a large degree, this is also a result of the fact that in many units the importance of maintaining liaison with soldiers' parents is clearly underestimated. It seems like a simple thing to write to a mother or father about the first steps of their soldier-son, about the unit or ship where he serves, about the conditions of military training and everyday life, and to ask for their advice as to how better to set up the training, and which personality traits and interests of the young man should be noted and taken

into account. Such contact should be maintained on a personal and ongoing basis. You would agree that in such a case parents would be able to better tell the truth from the lies when it comes to the subject of the Army.

There are quite a few letters in the mail in which the authors ask for help. Many veterans of the Great Patriotic War ask for confirmation of the fact of their participation and for assistance in solving everyday worldly problems. Mothers and wives most often make requests to transfer their loved ones to the regions where their families live and where apartments are available. Of course, these requests will also be considered, looked into, and met whenever possible. But it is also abundantly clear that many of the problems brought up in the letters could have been resolved a long time ago on a local level. Local soviet and economic organs and organs of military administration have ample means to resolve them. The reason people are writing to Moscow is clear: They were not listened to or helped locally.

We cannot disregard the approximately 800 letters that will go unanswered, mainly because of the absence of return address. Besides, some authors—there are about 150 of them—had not counted on a reply anyway. Their only goal, it seems, was to place blame and accuse the Armed Forces and the minister of defense. Of course, anonymous letters could simply be disregarded and not even mentioned. But the problem is that many of them are a result of disinformation and reflect misunderstandings that exist in society in regard to particular phenomena or events.

The authors of a number of letters, for instance, blame the Army for the death of people during certain events in Tbilisi, Baku, Vilnius, and other regions of our country. The minister of defense gave a clear and precise answer to the questions related to these events. We will remind the reader that, as a result of the painstaking work of the USSR Procurator's investigative group, the military has been completely exonerated in case of the Tbilisi tragedy. And in all other instances the military carried out its duty with dignity, blocking the way to extremism and violence, and sometimes becoming a wall separating two warring sides.

In short, this critique-oriented part of the mail generated by the television program also generally reflected the accusations directed at the Army and the minister of defense that received currency largely through the efforts of a certain part of "democratic" press that has adopted a tendentious and biased position toward the Army.

About 30 letters stand alone; their authors speak of their hatred toward V.I. Lenin, socialism, Soviet power, and the Armed Forces, and of their readiness to crush and destroy all and everybody in the name of "democratic" ideas. Such letters are further proof that there are people in society for whom the Army is a stumbling block in the struggle for power and the achievement of their political and other ambitions. At the same time, it is a reminder to all who hold the Motherland dear that they have to

keep up their awareness, not let their guard down, and not become victims of political nearsightedness.

One more category of letters. They have names and return addresses which on checking turned out to be fictitious. A letter from a group of wives of servicemen from Chita, or, to be precise, from the oblast recruitment office, is a real "cry from the depth of the heart": for more than three months the officers' families had not received their food rations. "For us it is a matter of life and death," the women end their letter. "Help us!" Despite the fact that the postmark indicated that the letter was mailed not from Chita but from Voronezh, the minister of defense, on the second day after the broadcast, tasked the chief of the Central Food Administration of the Ministry of Defense to check the facts. As a result it came out that the officers whose names were listed in the letter are not on the rolls of the oblast recruitment offices. On-site inspection showed that there have not been any instances of nonissuance of food rations in the Chita garrison. And one more detail: A similar letter had already been sent to Moscow before. This story is, unfortunately, far from being an exception: Another "truth seeker" is settling accounts—in this case, apparently with someone who is responsible for the food supply of the Chita garrison officers.

Here is another example. On 11 March a letter with provocative questions is sent by "Engineer A. Komarov" from Kiev. And by "strange" coincidence, a letter with the same questions, written on the same paper and with the same handwriting, is sent by "Colonel I. Tkachenko" from Sverdlovsk. The postmark on the envelope, however, is Kiev. In the same way, but this time from Moscow, letters are sent whose authors ostensibly live in Udmurtia, Omsk, Tomsk Oblast, and Kharkov... This is how the geography is expanded and the number of those "dissatisfied" with the Army is increased. Well, these letters also tell a tale—first of all, that those who try to achieve self-serving goals by being "anti-Army" do not shun even the most unscrupulous methods.

"Who is who..." Thanks to this program Soviet television viewers got to know better USSR Vice President G.I. Yanayev, Prime Minister V.S. Pavlov, USSR KGB Chairman V.A. Kryuchkov... The dialogue between viewers and the minister of defense has acquired a national dimension, having been followed by thousands of letters and replies to them. Among future scheduled guests is USSR Supreme Soviet Chairman A.I. Lukyanov. Each of these programs, including this latest one, could probably stand some improvement. But the reverberations they produce are immense, and this fact is confirmed by the mail that provided the "food" for this review. We would also like to use this opportunity to say a good word about the organizers and the anchor of these programs—I.S. Fesunenkov, whose biography, by the way, includes three full years of military service.

'Shchit' Program

91UM0557A Tbilisi VESTNIK GRUZII in Russian
23 Mar 91 p 3

[Unattributed article: "The 'Shchit' Union Program"]

[Text] The USSR Armed Forces and state armed formations are in a state of crisis, and because of this social tension is increasing and the rights of servicemen are not being protected.

At the same time, organizations exist in a number of countries, which provide social protection for servicemen and military reservists and members of their families, and which enjoy the support of society and the state.

Giving due consideration to world experience and the interests of Soviet servicemen and military reservists and the members of their families, the "Shchit" union defines the following directions of activity as program directions:

1. Providing social protection for servicemen and military reservists and members of their families and fighting to guarantee their civic rights and legitimate interests;
2. Creating conditions that eliminate the possibility of using the Army against its own people, and opposing attempts to bring the Army into conflict with the civilian population and the democratic forces in the republics;
3. Involvement in the writing of legislation and in administrative activity through members of the union who are people's deputies, at all levels;
4. Helping to effect reform in the Armed Forces on the principles of professionalism, democratization, deideologization, and humanization of military service, and also on the basis of the formation of republic military contingents;
5. De-party-ization of the USSR Armed Forces, Ministry of Internal Affairs, and Committee for State Security, the elimination of military-political organs, and revival of spiritual life in the Army and Navy;
6. Conducting independent expert military evaluations to analyze the situation in the Armed Forces, drawing up recommendations and providing information for the public, revealing the social foundations and instances of corruption and protectionism, illegality and arbitrary rule, the "dedovshchina" system, and other blemishes in the USSR Armed Forces.
7. Providing personal, political, material, social, and legal assistance and providing protection for servicemen and military reservists and their families;
8. Engaging in mass actions for the purpose of easing the situation of servicemen and reforming the Armed Forces;

9. Providing every possible kind of support for the activity of councils of parents of servicemen, committees of soldiers' mothers, and other public organizations fighting for the rights of servicemen;

10. Establishing contacts with public organizations of servicemen in foreign countries in the interests of developing diplomacy by the people and coordination and mutual assistance;

11. Engaging in educational work among servicemen and reservists, and participation in the political indoctrination of youth;

12. Cooperating with all progressive, democratic organizations and movements striving to achieve a real revival in the country and renewal in all spheres of the people's life.

In order to realize these directions and achieve its goals and tasks the "Shchit" Union will utilize all forms and methods of political, economic, ideological, and organizational activity.

Address: 103274, Moscow, K-274, Krasnopresenskaya naberezhnaya, No. 2, Russian Soviet Federated Socialist Republic Supreme Soviet, "Shchit" Union.

Telephones: 298-06-76, 298-06-46, 133-06-18.

The "Shchit" Union program was adopted at the second congress of the union on 16 December 1990 in the city of Moscow.

Appeal to Officers To Avoid Factional Strife

91UM0557B Tbilisi VESTNIK GRUZII in Russian
23 Mar 91 p 3

["Appeal" to Army officers signed by "a group of officers"; date not given]

[Text] Comrade Officers!

The situation within the country is such that each new day is unpredictable and there are increasing numbers of events and news items that do not add to certainty for tomorrow. Particularly for servicemen and their families. In the struggle for power, leftists and rightists at the top have shattered the country, constantly pushing you against the people while rarely asking for your agreement. The enormous list of ineffective laws merely further obscures an already obscure immediate future. Judge for yourselves: What is an officer now in the Transcaucasus? A junior lieutenant is pulled this way and that: can he endure it any longer, should he resign? It is difficult to endure, without prospects, but if he resigns where will he go? Who wants him? In the words of Vysotskiy's song, "... creaking, squeaking doors, no one wants you here!"

The middle-rank officer, the captain, who is set much firmer in the positions of Army morality, has in fact been degraded on the professional and physical planes thanks

to the confusion in the service and to alcohol, which at least sometimes soothes overstrung nerves.

The basic credo of the senior officers is to reach their pension without blemish and take as much as they can for themselves (get on the lists to acquire furniture or a car, which since 15 April has now become impossible). Without saying too much or doing too much (in the service), they sell to "someone" or barter for a few bottles whatever part of written-off materials they can.

All of this against the backdrop of confusion among the immediate command personnel and financial confusion—more money is being paid out, but life becomes increasingly hard. We have noticed the privileges that the marshals have hastened to announce immediately, but these gains in privilege have been there barely a year, and will they continue to be there?

And what of the soldiers? They have to endure most of all. Difficult economic conditions prevent the fathers and mothers of soldiers from giving them proper financial assistance: they are fed and clothed—that is fine. But the last thing they want is to eat always in an Army canteen and stay in uniform all the time ("Afghan-style apparel" ["afganka"] would be desirable). Just last year personnel were supposed to be getting a new uniform, but it is available only for a payment of 30-50 rubles [R]. This subject could be discussed for a long time, but R7 is R7, so the uniforms are far out of reach... Bold, fine young men are being turned into petty thieves who do not look you in the eye when you meet them. And the soldiers take and sell everything for a song, from the wheels of field guns to any small thing they may find in the apartment of an officer on leave. Much more military equipment and property was broken and stolen in the Army in 1990 than in all the years of perestroika. And only now, in March 1991, have the soldiers started to receive R30-50. Although even that fails to solve the problem.

Our military government is tardy in resolving the very serious problems pertaining to the maintenance and safekeeping of military equipment ready for combat. Or is it that if we cut back the Armed Forces, equipment and other material resources may not be needed?

But our immediate commanders and the colonels and generals are not answering these questions. They do not ask their subordinates: How are you living? Do you have any problems? Do you have enough time for your own spiritual welfare?

Neither. In addition to decisions that often contradict other, and Army problems, it is necessary to obtain things for oneself and one's family. But the trade enterprises for the military know everything: first, the commander, and then.... Are social justice and equality not just a myth of the socialist reality?

It is regrettable that sometimes in their search for ways to exist soldiers and officers become criminals to their own

consciences, not thinking that the weapon or the ammunition they sell will somewhere in the world take a God-given life. Who is guilty here? The answer speaks for itself.

Comrade Officers! Yes, we do have a difficult life, it is difficult to serve, and it is difficult to tell the truth about ourselves and it is not to everyone's liking, but in these times of difficulty for all of us let us open our eyes to each other's difficulties and problems, to the injustice of our military partocracy. At officers' general meetings, be broader and bolder in raising painful questions, and do not be indifferent, for this is precisely what helps the partocracy to divide us and rule over us.

The Union referendum has been held. Each of us has expressed his opinion on whether or not there should be a Union. We learn part of the truth through the mass media and the press. But it can already be seen that the fuss being made by some workers in the political department who are making advances to every voter is not for nothing, and that the conviction is being strengthened that opinions do differ! So that the time will come when the Armed Forces will withdraw from the Transcaucasus, and the armed soldier will no longer be sent to Ossetia or Azerbaijan or Georgia to resolve the interethnic problems or be set against the civilian population, and then there will be surprise: The prestige of the Army has fallen to zero!

It is impossible not to notice that the confrontation between the Army and the people of Georgia has recently declined significantly thanks to the activity of the leader of the ruling "Roundtable" of Georgia, Zviad Gamsakhurdia. He has virtually eliminated the small militarized formations that are constantly trying to discredit the military. Neither do we see the dangerous trend of

discrediting the Russian-speaking population in Georgia. It has become easier to breathe, and there is less concern for the families.

Each person has his own view of what is happening, but we must respect the purposefulness and tact in the actions of the Georgian leader in his desire to achieve sovereignty for the republic without denigrating the Army as he does so. It is essential to break down the wall of alienation between us and the indigenous population that stone by stone has been built up in our souls thanks to the actions of the partocracy. Let us restore the warm, friendly relations that always used to accompany our service in this land.

Your wives voted with you in the units. So! Each person expressed his opinion about the Union. On 31 March there is to be a referendum in Georgia about its independence. It is essential to express your opinion at the polling stations and not to remain indifferent to the wishes of the people on whose territory we serve. The more so since in this past voting each of us decided to express his own opinion, and the reasons are known to everyone.

We believe that if the Union republics split into separate states this will entail many small problems. But they can be resolved. It is inevitable that in a very short time the states will act together in political, economic, and barter exchange, but now no longer with the center.

The Army, no matter where it may be, should be professional and depoliticized, and carry out its mission to maintain combat readiness to repulse aggression against the motherland (the USSR, Russia, Georgia), and should in no circumstances be involved in resolving conflicts in the internal political struggle.

[signed] A Group of Officers.

What Kind of Military Doctrine Do We Need?

91UM0391A Moscow MEZHDUNARODNAYA ZHIZN
in Russian No 12, Dec 90 (Signed to press 22 Nov 90)
pp 39-51

[Article by Genrikh Aleksandrovich Trofimenko, chief scientific associate of the Institute of the USA and Canada of the USSR Academy of Sciences, doctor of historical sciences, professor]

[Text] By adopting the conception of reasonable sufficiency for defense and implementing a large number of measures by which to realistically implement this conception, the Soviet Union made a significant contribution to relaxation of international tension, and thus ensured more favorable external conditions for achieving the internal objectives of perestroika. This includes perestroika in military affairs—enactment of military reform, conversion of military industry and development of new approaches to ensuring the country's security. Soviet leaders emphasize that this last objective can be reached effectively only through the combined use of both military methods and resources for ensuring security—that is, construction of armaments and armed forces and their combat training, and political and diplomatic levers and resources, including a realistic policy of limiting and reducing arms and organizing joint security of all members of the world community on the basis of treaties.

A sharp debate has recently been going on in our popular and, in part, our scientific press concerning the means and forms of organizing the Soviet Armed Forces, their optimum strength, and the scale and means of conversion—that is, switching a fraction of military production operations to production of civilian goods. Articles are also being written on matters of doctrine, ones emphasizing ideas about the purely defensive, nonoffensive nature of Soviet military doctrine. Nonetheless, despite glasnost and perestroika, this doctrine has not yet been fully clarified.

In May 1987 the Warsaw Pact countries did in fact adopt the document "On the Military Doctrine of Warsaw Pact States," which emphasizes that the military doctrine of these states is strictly defensive, and that it is based on the notion that use of military force to solve any disputes is impermissible today. This document goes on to make assurances that Warsaw Pact states will never use nuclear weapons first, that they have no territorial claims against anyone, that they do not feel any other nation to be their enemy, that they support the principles of peaceful coexistence and the UN Charter, and that they are in favor of disarmament.

This document is not of course military doctrine, nor does it claim to be so. It should be treated as a political declaration, a preamble to a military doctrine *per se*. Because according to the standard, universally accepted definition found in all of our military works, the military doctrine of a state is "a system of views, adopted in a state for a given (particular) time, on the essence, goals

and nature of a possible future war, on preparing the country and the armed forces for it, and on the methods of its conduct."¹

In regard to this, the above-mentioned Warsaw Pact document only makes the laconic statement that "the armed forces of allied states are maintained at combat readiness sufficient to ward off surprise; and in the event that an attack is made upon them nonetheless, they will offer a decisive repulse to the aggressor."² It must be admitted that this wording does hardly anything to answer the questions posed in an encyclopedic definition of military doctrine. Even before its adoption, we all knew that if necessary, we would offer a decisive repulse to an aggressor. The same was also said prior to the Great Patriotic War, with the addition that the objective of the Red Army was to defeat the enemy on his own territory. But all of these assertions are more of the rank of political slogans than doctrine.

It may be objected of course that in the new international situation the Soviet Union's military doctrine must differ qualitatively from its military doctrines of the preceding era, inasmuch as war has now supposedly become impossible, and all disputes between states must be resolved by nonviolent means. Unfortunately, the distance between how they "should" be resolved and how they are actually resolved is still very great. On one hand the knots of modern international problems appear impossible to untie by the force of arms, while on the other hand the moment a conflict arises, even within a given country, the first business in the region of conflict is to raise up regular forces or the National Guard and frequently to put weapons to use.

Despite international negotiations and agreements on limiting and reducing armaments and armed forces, despite unilateral initiatives and steps in this direction, military development continues, and for the moment no one is apparently ready to reject it. Today, the total expenditures of all of the states of the world for military needs are over \$1 trillion, as compared to \$540 billion a decade ago. According to official figures our country's military budget is on the order of 70 billion rubles annually.

Speaking at the 28th CPSU Congress, USSR Minister of Foreign Affairs E. A. Shevardnadze declared that a quarter of our state budget—that is, over R100 billion annually—has been allocated to military expenditures in the USSR. He explained in this case that this figure includes the cost of creating the military infrastructure. According to estimates of the Committee for Science and Education of the USSR Supreme Soviet, in 1989 the country's military expenditures were 20-25 percent of the USSR's gross national product, or in other words, R320-400 billion. Considering that the country's store shelves have recently been empty, even these figures do not appear all that fantastic. But even this seemed insufficient to the military-industrial complex: As M. S. Gorbachev declared at the December 1989 plenum of the CPSU Central Committee, "even in the current

five-year plan the increase in national income was to be...within 22 percent, while expenditures for military needs were to be over 40 percent."³

If we consider that the military budget is devoted to the objective of effectively defending development and improving the quality of armaments in the presence of a certain reduction in their quantity, then precise formulation of war doctrine is an extremely urgent task. At least because substitution of a state military doctrine by peace-loving declarations of a general political nature makes precisely the negative impression upon potential opponents (those who may not be enemies today but who nonetheless remain, at least for the moment, our rivals, those who exist in opposition to us, and whose armed forces and military potentials continue to be viewed by us with a negative sign when we calculate global or regional military balances) which we would have liked to have dispelled by such declarations, put forth as doctrine.

This is an urgent task also because even if we take the 1987 Warsaw document as a statement of the political side of military doctrine, we cannot ignore the fundamental domestic political changes that have occurred in the countries that signed it.

Finally, fundamental changes have obviously occurred in the international geopolitical situation since 1987. Consider the impact of Germany's unification alone! With regard for all of this, only if we clearly formulate Soviet military doctrine, only if we say what our assessment of the probability of war—world and local—in modern times really is, and what sort of wars we are preparing our armed forces for primarily, how we intend to use them in military operations, and how we will conduct those military operations themselves (the probability of war has not yet been excluded), only then will we persuade our society that the nature of military preparations, development of defenses and the structure of the armed forces which this doctrine implies are necessary and sufficient for the Soviet Union's security. And only then will it become possible to make a realistic comparison between Soviet and, let us say, American military doctrine, the need for which our politicians, and sometimes the military as well, now insist upon so frequently.

The last time Soviet military doctrine was stated in more or less expanded form was in the well known work by Soviet military theorists "Voyennaya strategiya" [Military Strategy], edited by Marshal of the Soviet Union V. D. Sokolovskiy, reprinted three times prior to 1968, and still not republished in a new edition in our country, even though this book was subsequently translated into all of the main languages of the world. Many doctrinal provisions contained in this work have become obsolete in response to further revolutionary transformations in military technology, the colossal increase in nuclear arsenals of the USSR and the USA, and the significant changes that have occurred in the international political

and military situation. Given further and deeper consideration of the dangers of major nuclear war in the most important potential theaters of military operations that are supersaturated with nuclear and other modern weapons, and given the general changes that have occurred in the approach to conflicts associated with the philosophy of new political thinking, the principles of Soviet military doctrine that were presented in condensed form in an article on military doctrine in the third volume of the Soviet Military Encyclopedia, published in 1977, have turned out to be inconsistent with this new way of thinking as well. As we know, this article emphasized reliance upon the offensive as the decisive form of military operations, and defense was viewed as a "temporary and forced form of military operations."⁴ Since that time, all references in the Soviet press to the USSR's military doctrine, including in works written by marshals and admirals, have reduced to a general overview of the range of issues addressed by military doctrine in its sociopolitical and military-technical aspects, and to emphasis of its "fundamental difference" from the military doctrines of capitalist states, without revealing the content itself of this doctrine.

A clearly paradoxical situation has now evolved: The manner in which the modern army and navy should be developed is being debated in all quarters in the country—in the press, in the USSR Supreme Soviet, and in the supreme soviets of the union republics, at the same time that many of the participants of the debate have a rather fuzzy idea of what are the most probable defensive objectives (nuclear deterrence, repulsion of aggression from the sea, or continental defense) that our forces must be oriented on predominantly. In principle, they cannot be planned for all stated and unstated objectives—this is beyond the means of any country, and all the more so our country, given our current economic position. On one hand our principles of military doctrine are exuding more and more a spirit of universal well-being and peaceful love. Listening to our principal military orators at particular international seminars or conferences, it seems as if the word "weapon" itself elicits outright physical revulsion, which does nothing at all to inspire trust in their arguments. On the other hand the moment any critic of current military development is asked if the army is not getting too much, responsible military comrades immediately frighten him and all readers with references to an aggressor who supposedly has not only not restructured himself but is also waiting impatiently for the appropriate moment at which to engage us in war.

Military policy—something that both in our country and in any other civilized country must be publicly formulated military policy, so that it could remain under the control of the people's lawfully elected representatives—must not be based on emotions or on speculative propaganda manipulations of a "military threat." All too often in the past, as if in response to a signal (and perhaps in fact in response to a signal from either Suslov or from some other representative of the CPSU Central Committee's agitprop force), at times we have suddenly and

instantaneously caught sight of unusual growth of a military threat on the part of the USA and other NATO countries, while at other times—and in the same breath at that—we have discovered “a sharp decrease in international tension.”

Moreover the fact that as a rule, significant changes for the better in Soviet-American relations and toward real relaxation of tension were invariably preceded a year or year and a half prior to such improvement by publication of a corresponding document on, of all things, “intensification of aggression by the USA” and by other representatives of “world imperialism” graphically shows how really scientific, or at least reliable, the high-level predictions of the development of the international situation are.

Nor, unfortunately, were some provisions in documents of the CPSU Congress having to do with military issues an exception. And statements and commentaries of some delegates discussing foreign policy problems are absolutely puzzling.

I would like to emphasize by all of this that the USSR, and any other country as well, should not have any absolutely closed or secret aspects in components of military doctrine. The nature of military rivalry in the modern world and the unusual complexity of the geopolitical situation, especially as concerns our country, with its unique geographical location, do not allow us to completely, publicly show our cards, at this stage of historical development, in regard to some specific aspects of military development, new weapon systems, our internal estimates of military threats from different directions, and a number of other issues.

This is something other countries don't do either. American military theory even specially emphasizes that a certain degree of uncertainty concerning possible military reactions by the USA is even useful to deterrence.

But it is self-evident that the general outlines of our military doctrine must be known to all—precisely in the name of reinforcing our security in this way, and keeping the other side from putting more effort into its military; this would be the result of demonstrating that our defensive doctrine does in fact correspond to our military development, and vice versa.

It must be said that recently the Soviet military leadership did a significant amount of work to bring the military and technical aspects of Soviet military doctrine into correspondence with general political principles. The results of this work were revealed publicly in a speech by Army General M. A. Moiseyev, chief of General Staff of the USSR Armed Forces, at an international seminar on military doctrine held from 16 January to 6 February of this year in Vienna (Austria) within the framework of continuing negotiations of the 35 members of the Conference on Security and Cooperation in Europe.

The Soviet military chief began his speech by introducing new elements into the statement of USSR military doctrine. “Soviet military doctrine,” General Moiseyev declared, “is a system of officially adopted fundamental views on prevention of war, military development, preparation of the country's defenses and the USSR Armed Forces to repel aggression, and the means of conducting warfare in defense of the socialist motherland.”⁵

Comparison of this doctrinal statement, with its emphasis on the objectives of preventing war and repelling aggression, with the wording cited at the beginning of the article clearly reveals an unconditional turn in the doctrine of the USSR Armed Forces in the direction of a defensive strategy and military preparations corresponding to it.

Having spelled out the political aspects of the USSR's military doctrine as formulated in the 1987 Warsaw Pact document on the military doctrine of the pact's countries, General Moiseyev also briefly described its military-technical side. In this aspect, he noted, military doctrine involves a complex of questions such as “1) the nature of the military threat and the probable opponent; 2) the kind of aggression for which to prepare the state and the armed forces; 3) the kind of armed forces the state must have; 4) the means of military operations for which the armed forces must prepare in order to repel aggression. In regard to all of these questions,” Moiseyev emphasized, “our approaches have now been significantly refined.”⁶

Answering the first question, the chief of General Staff of the USSR Armed Forces emphasized that “the military danger has not disappeared.... We see the source of military danger in the military policy being pursued by the USA and NATO in relation to the Soviet Union and the Warsaw Pact, and in some principles of their military doctrines.”⁷

In regard to the second question General Moiseyev noted that the armed forces of the USA and NATO are preparing both for nuclear and for conventional war, declaring that “as long as the ideas of ‘nuclear intimidation’ continue to be materialized in the development, strategy and training of the NATO armed forces, as long as the very possibility of using nuclear weapons is allowed to exist, we will have to keep our armed forces ready to carry out defensive missions in whatever direction the situation might possibly develop.”⁸

It was said in regard to the third question that the USSR is currently guiding itself by the principle of reasonable sufficiency for defense in the development of its armed forces. In application to strategic offensive armaments, “this principle signifies approximate equality in such armaments between the USSR and the USA. Their structure may differ, but their potential combat capabilities must be comparable at any level of arms reduction.”⁹

For conventional armed forces, "defensive sufficiency means effective combat strength at which the sides are capable of repelling any possible aggression, while at the same time not possessing possibilities for making an attack and for conducting major offensive operations. This means: imparting a nonoffensive structure to the armed forces; limiting the strength of offensive armament systems; changing the disposition of forces and their stationing with regard for carrying out defensive missions; reducing the scale of military production, military expenditures and military activity in general."¹⁰

Finally, responding to the fourth question, General Moiseyev emphasized that on the basis of the experience of the Second World War, the offensive has been treated as the principal means of military operations of the Soviet Armed Forces. "We have now reviewed this strategy. In the event of aggression, the principal form of operations of the Soviet Armed Forces will be defensive operations. Defense on strategic, operational and tactical scales has been raised to the forefront in army and navy training. The operational-strategic plans and all fundamental documents, including manuals and regulations, have been revised from this standpoint.... Adopting the defensive conception and implementing it in fact, we are displaying good will and consciously placing ourselves, with the beginning of aggression, in a more complex situation—the situation of a defender. But in this way we completely eliminate the existing inconsistency between the political goal of preventing war and ensuring the country's dependable defense, and the practical actions of attaining this goal."¹¹

As a participant of the Vienna seminar, I can say for certain that General Moiseyev's report and his openness in matters of defensive development in the USSR and in problems of doctrine made a great impression upon representatives of Western and neutral states, who appraised this report as yet another indication of a new openness in Soviet society and new thinking in the Soviet military leadership. The speeches made by General Moiseyev and other military members of the Soviet delegation (who provided reports on the development and structure of the Soviet Armed Forces, on their military activities and military training, and on defense allocations) went a long way to promote success of the seminar: effective exchange of opinions, establishment of mutual understanding, and creation of personal contacts between its participants, many of whom had perceived each other prior to this only as military executives of the enemy!

At the same time, the debates at the seminar graphically demonstrated how much still remains unclear and contradictory in the Soviet military doctrine and in military development, how hard it is for us to understand the experience of preceding decades, and how difficult it is for us to break ourselves of mechanically repeating every zig-zag in the USA's military development, as if all problems of the USSR's military security hinge only upon it.

Despite everything that was said in recent years about mistakes in Soviet foreign policy, about the inordinate price the country has had to pay for some of its military and foreign political actions, about Stalin's political brutality, Khrushchev's adventurism, and Brezhnev's concessions to all demands of the Soviet military-industrial complex, there is a tendency for representatives of military development to portray themselves as innocent lambs of sorts, who had supposedly no say in anything and who only did what had to be done in response to the colossal threat on the part of imperialist militarism. Their "response" in this case was such that thus far, in all of the concluded and soon-to-be signed treaties on limiting and reducing armaments, "for some reason" we have to reduce more troops and equipment than the other side, to the bewilderment of our own people. It is some of these problems that I would like to discuss.

It would probably be unnecessary to make any special effort to prove that continental defense is the most important objective in regard to providing for the USSR's security. In today's conditions, this means not only protecting the country's land and sea borders but also the need for protecting it against a combined missile and air strike, theoretically possible today from all bearings, since American nuclear submarines and surface ships armed with strategic ballistic and cruise missiles carrying nuclear warheads are deployed in the Atlantic, in the Pacific and in the Indian Ocean.

Moreover we need to clearly understand—and our military people do not conceal this at all—that when the discussion turns to a possible nuclear strike against the USSR (not probable but only theoretically possible), only the USA is implied as the sole source of such a blow. No matter what we have seen written in our country about the nuclear arsenals of NATO, about the nuclear forces of England, France, Israel and so on, the nuclear potentials of the USSR and any other state except the USA possessing nuclear weapons are so incomparable that in the foreseeable future, a nuclear attack by such a state upon the USSR is practically excluded! Of course, such an attack is also politically improbable on the part of the USA, but considering the USA's military-technical potential, even a purely theoretical danger of this sort cannot be ignored when it comes to determining the objectives of the country's defense—at least from the point of view of persons responsible for ensuring the USSR's security.

This is precisely why the country has a missile attack warning system (SPRN), covering by its radar stations all directions along the perimeter of the Soviet Union. One such station—the Krasnoyarsk station, having the purpose of radar surveillance in a northeasterly direction—was built in violation of the terms of the ABM Treaty, and after many years of trying to pawn it off as something other than an SPRN station, the USSR government ultimately decided to shut it down.¹²

Nonetheless we still do not have protection against a nuclear strike: The stations can only warn the country's leadership and the armed forces of approaching missiles. According to the 1972 Soviet-American ABM Treaty and its 1974 Protocol, the USSR and the USA may possess only one antiballistic missile defense complex each, with 100 single-warhead antiballistic missiles in each complex.

Considering that 100 antiballistic missiles provide practically no defense against any kind of massed nuclear strike in conditions where, for example, just a single modern nuclear submarine equipped with ballistic missiles can launch almost 200 nuclear warheads at a target in a single volley, the United States mothballed its ABM complex back in 1976. The USSR maintained and even updated its ABM complex at Moscow, but it is clear to any specialist that it offers no protection against the kind of nuclear attack that is usually associated with nuclear war: Whatever the variant, there would be many hundreds or, more likely, thousands of nuclear warheads flying at targets in enemy territory.

The USSR's and USA's rejection of the idea of creating national ABM systems was a conscious, thoughtful, weighed decision of the political and military leadership of both countries. It was based on the low effectiveness of antiballistic missile systems based on what was then the "state of the art" in the development of such armaments, in comparison with the probable astronomical cost of national ABM systems. Another basic notion that predetermined rejection of land-based ABM systems by both sides (assuming prohibition of all other systems by treaty) was that by that time each of the sides possessed the potential of offensive strategic nuclear missile weapons of sufficient quantity, diversity and viability to ensure that no matter how a war might begin—even with an absolutely unexpected nuclear missile attack by the enemy—unacceptable damage could be inflicted upon the aggressor by a retaliatory nuclear strike.

In the language of strategists and theorists, this position came to be called deterrence by the threat of unacceptable damage to the attacker in a retaliatory strike. To this date it remains the basis for stability in Soviet-American nuclear confrontation, which will persist as long as both sides continue to possess strategic offensive nuclear weapons, despite even the fact that both states are moving toward interaction or even partnership in their political relations.

It must be said that one other important consideration regarding the transition (formally documented by the ABM Treaty) to the conception of mutual deterrence by the threat of a "guaranteed" annihilatory retaliatory strike was, paradoxical as this may seem, the certain amount of trust existing between Moscow and Washington. Moreover to a certain degree there is even the solid certainty of each side that in this sort of strategic situation, based on the evolved balance of nuclear forces, neither one would have any reason to take a "test of

wills" in any political or even local military conflict between them as far as an exchange of nuclear strikes.

After all, if Moscow or Washington had any doubts about the basic common sense of the leadership of the other side, no price—even the most fantastic—would not have seemed to be too high to ensure one's security by means other than nuclear deterrence with reliance upon a retaliatory strike. It is also clear that if such logic works in relations between superpowers and their arsenals of many thousands of strategic nuclear warheads furnished with resources by which to deliver them to targets, it is even more valid—and I would even say absolute—in relations of each of the superpowers with "minor" nuclear states, the arsenals of which are simple incomparable with the corresponding arsenals of the USSR and the USA at the present stage.

This is precisely why the fears of USSR people's deputy, Captain E. Gams that upon destroying 1,752 operational-tactical nuclear missiles in accordance with the shorter-range missile treaty, and keeping over 10,000 nuclear warheads on strategic missiles, the Soviet Union would supposedly find itself "defenseless" before England and France, the total nuclear arsenal of which is around 6 percent of the present Soviet arsenal, are absolutely groundless (as was noted by many participants of the debate that evolved on the pages of MEZH-DUNARODNAYA ZHIZN).

I must frankly say that the sides did not arrive at a situation of nuclear "mutual deterrence" in Soviet-American strategic confrontation right away. For a long time after World War II the Soviet-American balance of strategic armaments was such that if the USA were to make a first nuclear strike against the Soviet strategic complex, the USSR would not have had sufficient nuclear resources by which to retaliate with any kind of significant damage to the United States. Of course, today several military theorists and foreign politicians assert, as did Robert McNamara, who served as U.S. Secretary of Defense in 1961-1968, that the "nuclear dead end" in the Soviet-American nuclear balance had existed since 1961, and that both sides may have done unacceptable damage to each other as early as in the Cuban missile crisis of 1962.

McNamara himself, who in those years promoted the conception that it would be necessary and sufficient to deliver 400 1-megaton nuclear warheads to targets on any 20th century industrial country's territory in order to inflict unacceptable damage upon it, worked hard in those days to see that the USA could "guarantee" delivery of several thousand nuclear warheads to targets in the USSR. Thus he laid his hopes not on an avenging retaliatory strike upon cities of the "aggressor" but rather on a first strike against strategic offensive weapons of the "potential enemy" with the goal of annihilating them and thus disarming the USSR.

This was the "counterforce strategy"—that is, a strategy which laid its hopes on disarming the enemy with a

preemptive nuclear missile strike. Inasmuch as the counterforce strategy was clearly a strategy of intimidation "from a position of strength," of the threat of a first nuclear strike, our military quite validly called it "nuclear intimidation." (At the same time that Soviet civilian authors, who in the 1960s began timidly discussing military issues in the scientific press, used the more neutral term "deterrence" [sderzhivaniye], which did not convey the essence of what was then implied.)

With what could the Soviet Union, which did not then possess an equivalent arsenal of strategic nuclear armaments, realistically oppose this superior force? In the main—with the might of its conventional armed forces, and operational-tactical nuclear weapons just beginning to make their appearance. What we did for practical purposes in the order of counteracting the American nuclear threat was to make Western Europe a hostage, **intimidating** it also, with our superior conventional armed forces and armaments and our nuclear medium-range weapons, with their continual increasing potential, advanced into the allied countries of Eastern Europe.

The logic here was simple—we in a sense warned the Americans that if you attack us, we will retaliate by occupying Western Europe, thus neutralizing any real possibilities of yours for military capture of the USSR, and aggravating your problem of further nuclear strikes—you're not going to start hitting the population of Western European countries allied to you, you see! This indisputable fact is currently recognized by our former military chiefs as well.¹³

As a result of the titanic efforts of the Soviet people, by the mid-1970s the Soviet Union finally attained strategic parity with the USA in military development. This accomplishment, which was paid for at the incredible price of shutting down consumer goods production and, for practical purposes, of freezing social progress in the country, was appraised by the Soviet civilian and military leadership—both past and present—as a truly historical achievement of the USSR.

It fundamentally altered the strategic situation. We no longer had to treat Western Europe as a hostage. No matter what the scenario of an attack upon it might be—even a surprise nuclear strike, the Soviet Union retains the guaranteed possibility for an annihilatory retaliatory strike directly upon the USA. The latter conceded its position of superior military strength, and it could no longer **intimidate** the USSR. Nuclear "deterrence," if you wish, became mutual. And this happened precisely in the mid-1970s, and not in the mid-1950s, as some military theorists would like to suggest.

And so it was then, and only then, that nuclear deterrence transformed from unilateral intimidation of the Soviet Union by the United States and its superior nuclear arsenal into mutual nuclear deterrence, or in other words into mutual **dissuasion** of both sides, possessing essentially equal nuclear potentials, and resulted in the meaninglessness of not only a preemptive nuclear

strike against an opponent but also intimidation or blackmail "from a position of strength," inasmuch as neither side possesses real superiority in strategic nuclear forces.

However, rather than being satisfied with this historical accomplishment and making the appropriate strategic conclusions from it, under Brezhnev the Soviet leadership—as far as we can judge—first of all intended to overtake the USA, and itself emerge in a "position of strength" by acquiring counterforce potential which would allow it to disarm the USA with a first strike if necessary. Second, rather than halting our efforts to slight Western Europe as our "hostage" as a means of deterring potential aggression by the USA (inasmuch as there was no longer any need for this under the conditions of Soviet-American strategic parity), we **intensified** our intimidation of Western Europe by starting to deploy, on our own territory and without any clear grounds for doing so, as a supplement to the several hundred R-12 and R-14 medium-range missiles (SS-4 and SS-5 in NATO terminology) already at launch positions, new RSD-10 (SS-20) mobile medium-range missiles and new lesser-range nuclear missiles on the territory of our Eastern European allies.

To what did all of these actions lead?

They were a colossal fright to the leading circles of Western European countries, which were left with no alternative other than intensifying their reliance upon the USA in meeting the new Soviet threat, and activating their own military preparations. Essentially continuing to proclaim a unified Europe from the Atlantic to the Urals, we pushed Western Europe away from us with a soldier's boot, consolidating the NATO camp.

These actions strengthened the conviction in NATO circles that the Soviet Union, while groundlessly accusing the USA of a desire to initiate military conflict in Europe, was actually preparing for "limited" nuclear war against Western Europe, inasmuch as in their estimation the SS-20 missiles, which could not reach U.S. territory, would not be needed for anything else.

These measures made it widely believed in the West that the promise we made—not to use nuclear weapons first—was nothing more than a propaganda ruse, inasmuch as the stationing of Soviet missiles near the boundary between the blocs made their use unavoidable (according to the use it or lose it principle) in the event of even nonnuclear aggression on the part of NATO (and it was precisely on the basis of the idea that a war would begin with aggression by NATO that our public official scenario of a probable European conflict is based).

Finally, our reliance upon acquiring a counterforce potential, coupled with intensification of our military activities in the zone of developing countries and the beginning of military intervention in Afghanistan, played into the hands of those in the ruling circles of the USA who would have wanted to provoke the beginning of a new round in both the offensive and the defensive

strategic arms race. The Washington leadership, as represented by the Reagan administration, which came to power in the USA in 1981, was now prepared to **pay any price** for "a guarantee of the USA's survival."

In his speech to the 28th CPSU Congress E. Shevardnadze cited a concrete figure—R700 billion "added...to the cost of military confrontation by the last two decades of ideological confrontation with the West. This was above and beyond what was required to achieve military parity with the United States of America and with the West."¹⁴ I am deeply convinced that many of the misfortunes that befell the Soviet people, primarily in the form of the collapse of industry producing consumer goods, are the direct result of the inordinate imperial ambitions of the Brezhnev leadership, which was bent upon **forcing the USA to peace** (that is, imposing its own conditions upon the USA "from a position of strength," its own "rules of the game" upon the world arena), rather than reaching agreement with it on the paths and rules of further peaceful cooperation on the basis of compromise!

It was not until a new party and state leadership came into power in the USSR in 1985 that these ambitions were abandoned, and that the road to developing and adopting the conception of universal security and reasonable sufficiency for defense was opened. The premise that the USSR does not aspire to greater security than the USA, but that it will not accept lesser security, is one of the axioms of the Soviet conception of universal security. All of those arms limitation and reduction treaties that have already been signed between the USSR and the USA, or in the broader context between members of the all-European process, are based on this premise.

The Treaty on Conventional Armed Forces in Europe and a Joint Declaration signed in Paris on 19 November by the leaders of 22 countries open up a new era in European relations, in which, as they triumphantly declared, states of different social systems "are no longer adversaries, they will organize new relations of partnership, and they extend to one another the hand of friendship."¹⁵

Under these conditions, to continue to frighten the population, and "prime" ourselves by references to a policy of "nuclear intimidation" supposedly being pursued by the USA and NATO, as some of our military leaders have been doing to date, and taking no notice of the changes that have occurred, ignoring the process, begun by the NATO bloc itself, of reviewing its military doctrine in the direction of reducing reliance upon nuclear weapons, and failing to consider our own—fundamental I might add—contribution to military confrontation in the West in the recent past, is at the least an unfounded undertaking.

Frankly speaking, it is simply incomprehensible how we can simultaneously say that the Soviet Union's attainment of strategic parity with the USA is the greatest

historical accomplishment of the Soviet people and that the USA is continuing to pursue a policy "from the position of strength" in relation to the USSR. The essence, you see, of the strategic parity we have attained with the USA lies precisely in elimination of the opponent's military position of strength! Neither the United States nor NATO as whole now enjoys a position of military strength in relation to the USSR. And no responsible Western leader is saying anything otherwise.

Moreover the moment we persuaded Western leaders with a series of our own foreign policy and disarmament measures that we are serious in our desire for peaceful life, for peaceful communication, for equal partnership with the West, the USA and other Western countries began responding to us with the same, without even waiting for formal treaties: They adopted decisions to reduce military budgets, armed forces and military bases, to abandon modernization of tactical nuclear missiles and artillery and even to scrap some programs for building strategic armaments, while concurrently expressing a readiness to sign a kind of "peace pact" between NATO and the Warsaw Pact. This certainly says something about the real positions, intentions and fears of the Western democracies.

But the way things are going in our country, writing about the tyranny and pathological criminality of Stalin is permissible, saying that in violating the Yalta agreement and imposing totalitarian systems according to the Moscow model in Eastern Europe, he destroyed hundreds if not thousands of leaders in "fraternal" Eastern European countries is permissible, and condemning the interventions in Hungary, Czechoslovakia and Afghanistan is not only permissible but even fashionable, at the same time that making the logical conclusion that all of these, as well as many other actions on our part (such as postwar claims upon Iranian Azerbaijan and Turkish Armenia), frightened the countries of the West to death and forced them to rearm in the face of the Soviet threat (that is, the threat of Sovietizing the world—"We will bury you!"), is impermissible!

Emphasizing that Germany's unification will change the European balance of power, the president of the USSR stated that if the USSR's interests are not taken into account in the course of this unification, we will have to once again review "the status of our security, and what we must do with our armed forces, which we are reforming and reducing."¹⁶ And this is entirely natural. Continuing to assert that "aggressiveness" is an organic, basic trait of the West, for some reason none of our military theorists wish to think realistically about how the USA and Western Europe should have felt when they were left in the early 1950s with a narrow coastline upon a gigantic Eurasian massif, upon which a totalitarian system triumphed from Berlin to Beijing, a "communist monolith" that adopted as its official goal the victory of this type of "communism" on a worldwide scale—a victory in behalf of which, as one of the great leaders of those days proclaimed, the lives of 400 million of our own citizens was not too high a price to pay.

In this aspect we also need to give credit to L. N. Zaykov, one of the recent civilian leaders of the military-industrial complex who, discussing the Brezhnev period in the country's life, was the first to dot the "i" by declaring from the podium of the 28th CPSU Congress: "...you cannot rewrite history: What was, was.... In the eyes of the world, we were the aggressors. No one wanted anything to do with us."¹⁷

Over at least the last 30 years, the main concern of the governments and business circles of Western states was to strengthen economic muscles and to ensure the economic flourishing of their countries, at the same time that our country involved itself primarily in arming and rearming—partly according to a thoughtful plan, and partly as a result of the inertia of the first years of the cold war, as a result of which the heavy and military sectors of industry quite simply "devoured" the sectors of the national economy occupied in production of consumer goods.

Putting out missiles "like wieners" (using Khrushchev's colorful expression), ultimately we simply forgot how to make edible wieners, amateur sausage, tooth powder and many other things. And if the current leaders of Western countries ever decide they want to apply pressure upon us today "from a position of strength," they won't need tanks and missiles for this: They have superior weapons of an even more terrible kind—economic levers. Rather than strangling us "with the bony hand of starvation," they continue to sell us grain, butter and meat, they offer us sizable loans, and they invite us to participate in international economic organizations and financial institutions. Prominent officials of companies which we usually refer to as "sharks of the military-industrial complex" offer us sensible economic advice, exert active pressure upon their governments to repeal or at least significantly weaken the discriminatory limitations of the COCOM (which is in fact being done, by the way), conduct negotiations with us on joint production of civilian airliners, and so on. But in the meantime we continue to incite passions concerning the West's "bloody militarism," "subordinated" supposedly to the "greedy whims" of the entire social life of their countries.

Isn't it about time to recall the biblical parable about the beam in one's own eye? Because while we pursue a new, flexible, wise, humanitarian foreign policy, one which is unanimously applauded by all in the world, we cannot simultaneously undermine it with shopworn cliches, out of touch with modern realities, from the most negative propaganda arsenal of the cold war.

Footnotes

1. "Voyenny entsiklopedicheskiy slovar" [Military Encyclopedic Dictionary], Moscow, Voenizdat, 1983, p 240.

2. PRAVDA, 30 May 1987.

3. PRAVDA, 10 December 1989.

4. "Sovetskaya voyennaya entsiklopediya" [Soviet Military Encyclopedia], Vol 3, Moscow, Voenizdat, 1977, p 229.

5. "O voyennoy doktrine Sovetskogo Soyuza. Tezisy vystupleniya nachalnika Generalnogo shtaba VS SSSR generala armii Moiseyeva M. A." [On the Military Doctrine of the Soviet Union. Abstracts of Statements by Army General M. A. Moiseyeva, Chief of General Staff of the USSR Armed Forces], Vienna, 16 January 1990 (special issue), p 6.

6. Ibid., p 10.

7. Ibid., p 11.

8. Ibid., p 14.

9. Ibid., p 15.

10. Ibid., pp 15-16.

11. Ibid., p 20.

12. However, the logic of the defenders of the Krasnoyarsk radar station is original: "Erection of the radar station at another place, on Kamchatka or the Chukchi Peninsula (where its location—on the periphery of Soviet territory, and facing out—would have corresponded fully to the terms of the ABM Treaty.—G. T.) would have cost us not 200-300 million, but 2-3 billion" (PRAVDA, 1 April 1990). Thus it seems that as long as it is cheaper, we can spit on the international treaty, giving no thought to the fact that by our violation we placed a highly important ace in the hands of Americans who favored pulling the USA out of the ABM Treaty and creating a space-based antiballistic missile system. If you think about it, they were following the same "logic": Because it would be cheaper to oppose the Soviet missile threat from space, that's where we should deploy anti-missile defenses. The Soviets themselves aren't complying with the treaty anyway!

13. See PRAVDA, 30 October 1989.

14. PRAVDA, 5 July 1990.

15. PRAVDA, 20 November 1990.

16. PRAVDA, 5 June 1990.

17. PRAVDA, 4 July 1990.

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Yeltsin on RSFSR Role in Military Affairs

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No 1, Jan 91 p 3

[Article by B.N. Yeltsin, under the rubric "Political Podium": "The Army Is Our Children"]

[Text] Both society and the Army have now entered a sharp curve—perhaps, the most difficult in history. Enormous numbers of problems are not just knocking at our doors—they are breaking down the doors. Will there be a Union? What should be done to finally stop interethnic conflicts? What kind of army should we have? How do we feed, clothe, and keep warm our great but humiliated and impoverished people? Questions, questions...

Being firmly convinced that these questions should be addressed first of all to those who are today at the pinnacle of power, we begin to present to our readers the opinions of the foremost political and military leaders.

The citizens of Russia—and not only they—are entering the new year of 1991 in complex conditions. Far-reaching changes are taking place, and their full scale will only be clear to future generations, after a certain period of time.

Today it is already clear that we have exhausted the resources of the command administrative system under which we have lived for many decades. This system is the yesterday of the modern world, which is poised in the direction of the future, and for which iron curtains and concrete walls that separate countries and peoples from one another are unacceptable. But our task is not to destroy what exists; the main point is the constructive work, the revival of those fundamental things in life that will permit us to get out of the dead end, in which the country, the republic, and all its people found themselves. The parliament and the Russian Government work precisely in this direction.

We have prepared, in the shortest time possible, a concept and a program of radical economic reform. It could already have started paying off, had it not been blocked. The recent RSFSR [Russian Soviet Federated Socialist Republic] Congress of People's Deputies has discussed the question most important for the country: the revival of the Russian agrarian sector. Peasants have been given freedom, and private property permitted. We firmly believe that if we get the agrarian reform off the ground, it will become a beginning for solving the food problem, which long ago became chronic, and the rebirth of the most valuable stratum of the society—the peasantry—will begin.

The work has begun to establish solid treaty-based relations with Union republics. These treaties reinforce the existing multilateral interrepublic ties. Their development acquires a solid legal foundation. Treaties between the republics—which they are eager to enter—are not directed against anybody. There is not a single point in the treaties we have already signed with

Ukraine, Belorussia, Moldova, Georgia, and Kazakhstan that would be in conflict with the idea of a union. I am convinced that an active process of entering treaties will help to stabilize the situation during the period preceding the signing of the Union Treaty.

During the last few months the changes in our countries have been characterized, first of all, by the process of republics claiming their sovereignty. I want to underscore that in the foundation of this process are not somebody's ambitions, or some subjective or propagandistic reasons. First of all, this process grew out of the increased national self-consciousness of the peoples, and of their desire for free, nonhandicapped life. This is a complicated process; it is uneven, and sometimes it goes overboard, but whatever shapes it takes, it is still an objective process, and it is irreversible. Full-fledged statehood of the republics is an alternative to a unitary state. Sovereign republics are the true subjects of the new union of sovereign states, the idea of which we fully share. Only the unity of free peoples, entered on their own free will, may produce a solid and stable union.

The period of reforms that our country is going through cannot leave the Armed Forces untouched. This is a most important institute of state, and one in which serious and complex process are also going on today.

We need to find answers to most complex questions. What is the place of the Army in the new union of sovereign republics? What are the new principles on which the Armed Forces are to be built? What are the perspectives in the development of national defense and how to ensure our security on the basis of largely qualitative parameters? What are the most effective ways for social and legal protection of the military personnel and their families?

There are many problems, and to delay their solution is inadmissible. We know quite well the situation in the Armed Forces, and the problems that the Army is encountering now. The way out is not in haphazard measures, unrelated to each other, but in a fundamental military reform.

I am convinced that an optimum version of it, capable of bringing real results, cannot be hatched in the offices of the USSR Ministry of Defense alone. It necessarily requires the active participation of broad military circles, the republics, and the Union leadership. After all, an effective military policy and the ability to ensure a stable world is in the best interests of all of us; therefore, we all have a stake in having quality Armed Forces. In Russia, at least, it has always been understood.

The people in military uniforms have been guests in the Russian house of soviets more than once. We value our relationship, and we are ready to continue the dialog that we have established. We will continue to pay special attention to the social problems of the military, and will assist in the most complicated process of redeploying the military formations from the East European countries to

Russia and the social rehabilitation of military personnel being demobilized from the Soviet Army.

At the same time, I would like to note that the Russian leadership is seriously concerned with the negative phenomena in the Army environment. The Armed Forces can count on our support in solving these problems, too. There already is a resolution of the RSFSR Council of Ministers in regard to the problems related to the reduction of the USSR Armed Forces on RSFSR territory. In the works is a republic program of priority measures directed at social and legal protection of the military during the period of transition to a market economy. We also find it expedient to establish, effective this January, the office of the RSFSR Council of Ministers representative on rights and grievances of the military personnel; these offices are to be established in the RSFSR constituent republics and oblasts, and in the cities of Moscow and Leningrad. We have also prepared proposals on how to provide job search assistance and vocational retraining for the military transferred to the reserve, and their families.

These are only the first, far from comprehensive, steps the Russian leadership is taking in the direction of social and legal protection of the military. We are taking these steps, although it is known that these are precisely the functions Russia has delegated to the center.

I want to especially mention the problem that has been floating around during the last few months—the participation of the military in domestic politics, or, to be precise, the question of power.

I follow attentively the development of events and the course of discussion on this topic and I have come to some conclusions. It is not possible for the military not to play an important role in a state, especially a state like ours, with its history and traditions. There are many people in military uniform in the parliaments, and we understand that. But I categorically reject even the slightest thought that it is possible to find the way out of the crisis by force—with the help of the Army. And here is why.

First, the Army is not going to solve economic problems, and it is the economy that is the number one problem today. On the contrary, such a course of events will deprive us of the last chance for positive action, a chance to make it without a civil war. If it is decided to use force, those who know how to get the country out of the crisis and, most importantly, can accomplish it, will be removed from power.

Second, each conflict has its own development logic. If the Army is brought in as an actor into our boiling society, confrontation will increase greatly, which will inevitably lead society to a catastrophe.

Third, the calls for the diktat of the Army are coming, in my opinion, from an insignificant part of our society and, I will say it straight, a small group of adventurers in

the Army itself. They do not see that the Armed Forces today are not homogeneous, and the recent events prove it.

We know how complicated the situation in the military is today, and what contradictions it suffers from. The reason for that is because the Army has been left one-on-one with its problems. Therefore, Army interference in domestic political affairs will cause it to explode from within. It may split into opposing groups. Hard political struggle, which nevertheless still remains peaceful, may grow into an armed struggle. Keeping in mind that we are a nuclear power, this course of events will create a threat not only for our country, but for the entire world. In the end, we can lose the Army altogether.

Fourth, I categorically reject the opinion of the Army as a dark, reactionary, antipopular force. The Army is first of all citizens of our country, its children, who care about the fate of our Fatherland as much as we all do. And I think that the healthy forces in the Army will not let it go in this fatal direction. The guarantee of that is the officers corps of Russia, which has always held immortal the highest human values: honor, bravery, courage, nobleness, and loyalty to their people and Fatherland.

I would like to use this opportunity and, through the weekly SYN OTECHSTVA, to offer New Year's greetings for 1991 to all those who protect the peaceful work of the peoples of our country; I wish you good health, happiness, and endurance in this time that is difficult for our motherland.

Armenian Officers Form Union, to Organize Draft

NC0904123491 Yerevan Domestic Service in Armenian
1730 GMT 6 Apr 91

[A recorded report by Julietta Apovyan from the the founding conference of The Patriotic Union for the Defense of the Armenian Republic's Reserve and Retired Officers which took place on 6 April in Yerevan]

[Excerpts]

[Apovyan] The meeting took place at the building housing the standing commissions of the Armenian Republic's Supreme Soviet. Gathered at the meeting were the republic's reserve and retired officers whose aim was to create an officers (?union). This is a voluntary non-political military-patriotic public organization which aims to play an active role in the country's military structure and provide assistance to strengthen the Armenian Republic's defensive capability. Before the meeting, I spoke with Vazgen Sargisyan, chairman of the Armenian Republic's Supreme Soviet Standing Commission for Defense and Internal Affairs.

[Sargisyan] On the eve of May conscription, now that about 20,000 Armenian boys have gathered here and will remain and serve in Armenia—whether or not the [central authorities] allow it—, we need officers of high caliber. This is not a job for (?amateurs), it requires

major [words indistinct] and today's meeting of the officers will specifically aim at [passage indistinct]. There are at the least 300 or more officers here. They are officers imbued with an Armenian outlook and will be able to organize the conscription of our boys. We need soldiers with an Armenian mentality whose basic goal should be the defense of their country. [passage omitted]

[Apovyan] Lieutenant Colonel Derenik Bagdasaryan, chairman of the organizational committee on the union, spoke about the problems of the newly created union.

[Bagdasaryan] At the initiative of the Supreme Soviet's Standing Commission on Defense and Internal Affairs and at the initiative of a large group of officers, an officers union of Armenia is being set up. Its first aim will be to ensure the implementation of Article 5 of the Declaration of Independence adopted by our republic's Supreme Soviet. The article refers to our military program. We must launch broad activity in the military-patriotic sphere among our Armenian youth, we must establish links with the army units, we should study the life styles of our Armenian soldiers and the work being done in their circle. At present, the Armenian soldiers do not want to serve in the Soviet Army units. Our population, both the parents and the draftees themselves should realize that the creation of an army is not an easy task, it takes years to accomplish. And, if in the meantime we do not serve in the [Soviet] Army units then our future national army will have no cadres. [words indistinct] There are now Soviet Army units on our territory. Armenians have served in that army for decades and have shed blood in that army. Now, it is not possible suddenly to stop serving in these units and forgo the possibilities of gaining [words indistinct] expertise. We need this expertise to use later on in our own army. In fact, as many people as possible should enter these army units deployed on Armenian territory and once there should demand that they be appointed to real combat positions, and not to kitchens and [words indistinct] in other manual positions. They should serve well, and should benefit from it and receive real technical and military knowledge. And I am sure that whether we want it or not our own army will be (?formed) in the near future.

Kaliningrad Oblast Becomes Illegal Arms Supply 'Base'

LD2104150191 Moscow Radio Rossii Network in Russian 1348 GMT 21 Apr 91

[Text] Kaliningrad is turning into an arms base supplying flashpoints around the country. This disturbing conclusion was drawn by Shestakov, deputy head of the Internal Affairs Directorate of the Kaliningrad Oblast Executive Committee, during a briefing with journalists, as reported by the SEVERO-ZAPAD Agency. There have been regular arrests lately in the oblast of second-hand dealers from southern parts of the Soviet Union. Previously, weapons were found in former German arsenals; now it is becoming fashionable to steal them from units of servicemen and to attack armed guards. In addition, weapons are smuggled in across the Polish border. The local civil wars that have been afflicting the country for the past couple of years have turned the collecting of weapons from a hobby into a very nasty business, the SEVERO-ZAPAD Agency reports.

Seven Injured in Clashes in Getashen

NC2404131591 Yerevan ARMENPRES International Service in Armenian 1215 GMT 23 Apr 91

[A reprint of a report from HAYASTANI HANRAPETUTYUN. "There is No End To The Shootings"—ARMENPRES headline]

[Text] Yerevan, 23 Apr (ARMENPRES)—There was an exchange of gunfire at 1700 on 19 April between Martunashen and Kushchi-Armavir villages on one side and Sarysu village on the other. The incident followed the provocative operations by the Azerbaijani Special Purpose Militia. An attack was also launched on Getashen at 1730. The Special Purpose Militia used automatic weapons and anti-hail guns. The exchange lasted until 2300. Shooting ceased from Getashen and Martunashen after the incoming artillery fire ceased. However, the Azerbaijani Special Purpose Militia continued to fire from the direction of Azat and Kamo until 0200. At 0300 the military subunits of the USSR Internal Affairs Ministry abandoned and left their guard posts. Getashen and Martunashen villages are currently surrounded by Azerbaijani Special Purpose Militia. No shots were heard the morning of 20 April. According to the preliminary reports, seven people were injured, four of whom were Armenians.

Lt-Gen Ivanov Comments on Functions of Space Units*91UM0409A Moscow IZVESTIYA in Russian
23 Feb 91 Union Edition p 1*

[Article by V. Litovkin: "Space—The Military Displays." Photo by Yu. Inyakina not included.]

[Text] On the eve of the Day of the Soviet Army and Navy we visited the Main Center for Space Resources of the USSR Ministry of Defense, located in an area near Moscow. IZVESTIYA journalists were the first to visit this military installation, which had been strictly classified for many years.

"We deal with directing and testing all orbital spacecraft," said Lieutenant-General V. Ivanov, Chief of the Main Center, "including, those designed for the national economy, science, and military, and excluding only those relating to PVO Troops, intelligence, and the "Mir" space station, which is directed from the Central Control Station [TsUP], but even there we have a say...

It is here, near Moscow, that the sputnik flight program is scheduled, and in our country we have over one hundred flights; their performance in orbit is tracked; the functioning of all systems is controlled; telemetry data is taken and processed; and, if necessary, the required commands are given to space objects from here and corrections are made.

The center works around the clock and always has ties with dozens of monitoring-measuring stations scattered throughout our entire country. The Center also cooperates with crews of spacecraft belonging to the USSR Academy of Sciences.

Who are these people who, as was once said, own the keys to space? One of them is Colonel F. Fedorov, commander of one of the shifts. He began his service career in the Strategic Rocket Forces, but has been in space units since 1966.

The most highly trained experts are needed to direct space activities. They cannot be trained in one or two years. It is not by coincidence that among the officers of the Main Center are five doctors of technical sciences and sixty-five candidates. But here is the problem: Sometimes the attitude toward them is the same as toward military officers who are not so highly trained; at 45-50 years of age they are made to retire, when this is only the beginning of their creative powers, knowledge, and work output... The artificially created youthfulness of space units creates many problems. In any case, officers of these troops have the same problems that all military services have, just as the entire country has problems.

True, we did not notice any nervousness in space units. Work proceeded calmly and with exactness. Science and industry turned over a new ballistic navigational system as a component of armament, and the military took charge of it.

"There will be 24 sputniks in three orbits, at a height of 2,000 kilometers," they told us. "A man anywhere on earth, for example, a forester or geologist, or people in an aircraft or automobile, will be able to determine their exact location."

Space units of the Soviet Army worked on not only military problems, but also on peaceful problems having to do with the national economy. We did not see any weapons in their displays. In contrast to earth, there are simply no weapons out in space. And we hope there will never be any.

Costs, Amounts of New Serviceman's Insurance*91UM0409B Moscow IZVESTIYA in Russian
26 Feb 91 Union Edition p 3*

[Interview with Colonel-General V. Babyev, Chief, Central Finance Directorate, USSR Ministry of Defense, by V. Litovkin, IZVESTIYA correspondent; date not given: "The Soldier Behind the Shield of Insurance."]

[Text] With the goal of providing social protection to servicemen and those who have a service obligation, by Decree of the President of the USSR, mandatory personal insurance paid by the state became effective in January of this year. How will it be implemented in practice? Colonel-General V. Babyev, Chief of the Central Finance Directorate of the USSR Ministry of Defense talks about it with our correspondent.

[Babyev] "The President's decree," says Vladimir Nikolayevich, "supplemented the resolution of the USSR Council of Ministers and the order of the Minister of Defense. Pursuant to these documents, effective as of January this year all servicemen and those called in for the harvests are insured for loss of life, mutilation, and permanent loss of health caused illness or illegal acts by others. This insurance is paid by the USSR Ministry of Defense, the Ministry of Internal Affairs and the KGB of the USSR, as well as the USSR Ministry of Transport Construction (these are all our railway troops), and other ministries and departments where military construction troops still work."

"Insurance limits are, as follows: In case of death of the serviceman or a person who has a military obligation and has been called in from the reserves, his beneficiaries will receive 25,000 rubles..."

[Litovkin] Isn't that too small a price for a human life? In the United States the relatives of a soldier receive 50,000 dollars in the event of his death.

[Babyev] I believe that, in principle, the life of a man is priceless. No amount of money could replace a son for his mother, a husband for his wife, or a father for his child. But this is the amount with which our country today can somehow compensate the family for the death and loss of a dear one. When we become richer, I am certain that the insurance payments will also increase.

[Litovkin] Military expenditures for this year include 0.3 billion rubles for servicemen's insurance. If this figure is divided by 25,000, it is easy to see for how many unfortunate cases it is earmarked. And I hope to God this does not happen, but what if there are more tragedies than anticipated?

[Babyev] The linear arithmetic that you are showing me does not work here. And here is why. First of all I want to note that in the USSR Law "On the Union Budget for 1991," under the "Military Expenditures" section, it is not 300 million rubles that are allocated for servicemen's insurance, as announced earlier, but 285 million rubles. This money will be spent not only to pay the designated sums to beneficiaries upon a soldier's or officer's death, but also to pay in cases where the insured is deemed to have a disability in connection with an illness contracted during military service or harvest.

Accordingly, a disabled person of Group 1 will receive 15,000 rubles, Group 2—10,000, and Group 3—5,000 rubles. Furthermore, if a soldier is seriously wounded, he will receive 1,000 rubles and 500 rubles for a light wound. Also, this money will be paid to the serviceman regardless of whether or not he becomes disabled due to his injury.

The resolution of the USSR Council of Ministers and the order of the Minister of Defense allocate other payments as well. In particular, if a term enlistee or a reservist called in for a harvest is certified unfit for the army due to health reasons, he will also be paid 1,000 rubles...

As you can see, there are enough differences in payments, and they cannot be brought together into some sort of total, or even a "best case" figure. Having said this, I would like to emphasize another point. All funds not expended for insurance will not go back into the state budget or the Ministry of Defense budget, but will be credited toward future insurance payments.

[Litovkin] Does the amount allocated in the budget cover every possible contingency?

[Babyev] Yes. The state will pay out the insurance for any contingency.

[Litovkin] But life is richer than any kind of pay out. Are you proposing to pay insurance to relatives of those who commit suicide? After all, it is known that suicides comprise one fourth to one fifth of all deaths in military units. And how about those who "shoot themselves," or are injured due to their own fault or carelessness?

[Babyev] Military regulations cover the legal investigations of all accidents, as well as deaths. If an investigation determines that death or disability of the insured occurred because of his willful action or some other circumstance that directly points to his fault, there will be no compensation. Also, the same would be true in a case where an accident occurs because of alcoholic,

narcotic, or toxic poisoning of a person, or if there is definitely a willful act of doing damage to one's own self, or a crime...

But, I repeat, these kinds of conclusions are reached by investigation and, if necessary, a court trial.

[Litovkin] There are many known cases of military-medical induction commissions certifying people as being fit for military service when they know that these people are not healthy. Who will pay for their being "unfit"?

[Babyev] We already noted that insurance money will be paid out only to those who became sick while in the service. On the one hand this eliminates the possibility of receiving illegal insurance money, and on the other, it places more responsibility on military-medical induction commissions for the quality of their work, especially if the injured parties file civil suits in the people's court regarding their "unfit" status.

[Litovkin] Who has to pay out the insurance money? Where would a relative go in event of a death or where would a disabled person go?

[Babyev] The basic address is the following: The district inspection office of state insurance. Documents for receiving the amount due will be completed at the serviceman's duty station or where he was inducted for the harvest, that is, in the military commissariat.

The order from the Minister of Defense requires commanders of military units and chiefs of military commissariats to immediately give the serviceman or his relatives all the necessary documents.

[Litovkin] Who receives the insurance money if the deceased has, in addition to a wife and children, parents or other living relatives? And also, do the insurance payments cancel out the payments that families of deceased servicemen received or pensions that had been approved earlier?

[Babyev] No. Neither that compensation nor those pensions will be cancelled. The right to insurance will be determined by notary offices, that in accordance with the law, are required to provide evidence of the right to an inheritance.

[Litovkin] And one final question, Vladimir Nikolayevich. Compulsory insurance for servicemen was first introduced in our country on January 1st of this year. What about those whose close relatives died or who received a disability due to military service prior to this? Why are they deprived of the right to a comparable compensation?

[Babyev] This is a very tough and complex question. I can say one thing for now: The question is being studied by competent authorities. I hope that we shall have the results in the very near future.

Army Bills Samara Red Cross for Aid Shipments

PM2404141591 Moscow IZVESTIYA in Russian
20 Apr 91 Union Edition p 2

[Sergey Zhigalov report under "Direct Line" rubric: "Red Cross To Go to Debtors' Prison?"]

[Text] Samara—A military unit has presented the Samara Oblast Committee of the Red Cross with a bill for more than 600,000 rubles [R] for the transportation of consignments of humanitarian aid.

Parcels sent to Samara by the German Red Cross, as well as powdered milk, rice, and other products purchased gratis by the Samara's "Rodnik" enterprise for badly off inhabitants of the Volga region were delivered from the FRG to Kurumoch Airport by Il-76 and An-22 military transport planes.

But "Rodnik's" unselfish good deed has turned out to be punishable. The military airmen have declared a selfish interest on their part in the charitable action, sending a telegram to the Samara Red Cross. It was signed by Ye. Kryuchkov, chief of the troop unit's transportation department. He was demanding R600,000 for services rendered.

"We have only R240,000 in our account," V. Yevdokimov, chairman of the Samara Red Cross, says. "It would take two annual budgets to settle up with the troop unit. As well as economic concepts there exist also unselfishness, charity, and honor. Foreigners help free of charge, while the defenders of the Fatherland are ready to throw us into the debtors' prison"...

Critique of Presidential Commission Findings of Service Casualties

91UM0387A Moscow SOVETSKAYA ROSSIYA
in Russian 16 Feb 91 First Edition p 4

[Letter to the editor from Colonel of Justice V. Prishchep, senior assistant to the Chief Military Prosecutor: "Whom Are We Deceiving?"]

[Text] And so the special presidential commission on investigation into the causes of deaths of servicemen and injuries in the Army and the Navy has completed its work. Yu. Kalmykov, the chairman of the legislative committee of the USSR Supreme Soviet, who headed it, gave high marks to the competence of the staff of the commission and to the prospects for the proposals they developed. At the same time, attentive analysis of the document findings lays bare the illusoriness of such a self-evaluation.

It is appropriate to mention that a ukase of the president of the country of 15 November 1990 proposed that the government and various ministries of the Union SSR examine the question of material compensation to families of dead servicemen, rewording of death certificates, and others. The USSR Procuracy was charged with

checking certain cases of desertion and adopting measures to reinforce the protection of the rights of servicemen. It was recommended that committees of the USSR Supreme Soviet accelerate the development of legislative acts in the interest of conscripted servicemen and examine the proposals of the committee of mothers of soldiers in the course of work on the package of laws drawn up on military reform.

A large number of such proposals was submitted to the special commission, and they sat there without being sent to listed executives. Time was passing, and a strained Union budget was being developed, but those proposals that were capable of influencing it piled up in the commission, which, in general, did not have the authority to make a practical decision on them. And so, a voluminous report, with many pages of quotes of proposals, was transmitted to the USSR president. They say, you analyze it, our task is only to demonstrate responsiveness to people's queries.

In a similar bureaucratic manner, the commission also transferred its own direct task to the USSR president—verification of the objectivity and completeness of the investigation into the causes of deaths and injuries. After querying the population and receiving more than a thousand statements on disagreement with the legal evaluation of tragic cases, it recommended the establishment of a permanently active organ under the USSR Cabinet of Ministers, similar to the commission itself, but also with a vertical structure right down to local soviets. The social-state innovation being planned is pleasing to any tastes. This is a kind of soviet of people's deputies of various levels, of independent lawyers and "other state figures," of parents of servicemen, and of representatives of the mass media. But, simultaneously, it has the rights of a USSR state committee and functions of all-encompassing control, including the investigation of criminal matters, and, of course, without responsibility. But on the other hand, the committee is called on to continuously feed all possible proposals directly to the USSR president.

How popular the role of advisers is in this country, next to stimulating work! But, you see, there also were legal variants of the realization of this idea of the soldiers' mothers that was achieved through a lot of suffering. It was formed in the midst of the committee on legislation into a deliberately doomed project to combine legislative, executive, and judicial authority, the state organ, and the social movement. And I cannot get rid of the idea of deliberate deception. For it is impossible to suspect that the chairman of a high parliamentary committee and chief of the legal department of the Saratov Legal Institute, who signed the report, lacks legal information.

True, no less amazement is caused by certain other inferences. Thus, the reasons for deaths and injuries, among others, are given as the "absence of a system of responsibility for human rights violations in the Armed Forces, and the lack of laws that protect the life, health,

honor, and dignity of servicemen; the absence of criminal responsibility of the officers for using servicemen and military builders for personal selfish purposes," and other such "absences." How surprised people will be who are serving sentences for murder and abuses, and negligence and insults. It appears that they were sentenced according to nonexistent laws?!

While not being enthusiastic about a further demonstration of the unsoundness of some of the propositions of the report and a listing of the proposals that are deserving of study, the concrete results should also be mentioned. At the moment that the work on verification was concluded, there were 72 criminal cases, eight of which were considered by the commission. Doubt was expressed in the working groups in 14 cases. Additional investigation is being conducted in one of them, and no one has a right to bring pressure on the investigator during its progress.

Not all doubts in the remaining cases concern the reasons for the deaths, but people should not be rebuked for this who have endured personal grief.

Here is a typical case with Junior Sergeant Andrey Shmerko, who died on 1 November 1987 as a consequence of a severe meningococcus infection. On the night before he felt sick, he flatly refused to be sent to the medical battalion, because he was to meet his father on that day. The next day turned out to be too late, despite the efforts of the doctors. Just at the end of October, Andrey was painting wall panels, and so the father began to suspect that the son might have been poisoned by paint fumes. And although there were no symptoms of poisoning, which was also the case with the other coworkers, the members of the working group of the commission convinced the parents of an ill-intentioned incomplete investigation.

Private V. Dedov died from severe leukemia in the Kaduyskiy Rayon hospital of Volgograd Oblast. No one as yet has come up with an idea of how to defeat cancer of the blood with the criminal code, and, naturally, no case was filed. But the bitter irony of these lines comes from attempts to exploit the tragedy of mothers in order "to prove the concealment of crimes in the Army."

Nevertheless, the USSR Procuracy must decide whether there are legal reasons in the doubts of the commission for an additional investigation. But it should be noted in the meantime that the commission does not have a legal basis for an evaluation of this delicate matter.

And further. It is proposed, first, without delay to give an amnesty to all deserters. To the same ones who are committing outrages under conditions of an actual illegal situation or who fill up gangster groups.

They propose to eliminate military procuracies and tribunals on the pretext of guarantees of independence from the military departments. However, even a slightly experienced person sees in this "innovation" an urge to return the troops to local influence. Then, of course, it

will be easier to consider a soldier a defender in one place and an "occupier" in another.

And there is a third piece of advice in this framework to the USSR president: Do away with the governing body of the Chief Military Prosecutor. Why? The answer is obvious. It personifies uncompromising supervision of the regime of law in the Army and its subordination only to all-Union authority. Under such a policy, partition of the Armed Forces cannot be achieved. Thus, is it not these motives that move those who in the name of rather definite goals are ready to take advantage of everything, even a mother's grief?

Maj-Gen Bay Queried on Troop Insurance

91UM0387B Moscow KRASNAYA ZVEZDA
in Russian 19 Feb 91 First Edition p 4

[Interview with Major General N. Bay, chief of the Directorate of Social Security of the Main Financial Directorate of the USSR Ministry of Defense, by S. Anisko; place and date not given: "If a Misfortune Happened..."]

[Text] As was reported in our newspaper in the 8 January 1991 issue in the article "...And an Insurance Policy," the USSR Council of Ministers approved a decree on state compulsory personal insurance for servicemen and reservists who are activated.

On 2 February, the USSR Minister of Defense signed Order No. 50, which provides the necessary clarification on insurance questions. Our correspondent asked Major-General N. Bay, chief of the Directorate of Social Security of the Central Directorate of Finance of the USSR Ministry of Defense, to comment on the principal aspects of the order.

[Anisko] Nikolay Maksimovich, the widow of officer T. Petrov, whose husband died on 1 January of this year in the performance of service duties, writes that neither in the unit, the military commissariat, nor the local soviet executive committee did anyone explain to her the procedure for receiving insurance compensation...

[Bay] Apparently, the order of the minister of defense has not yet reached the units. The procedure for receiving insurance sums by survivors of deceased servicemen and reservists who were called up for training is rather straightforward.

First of all, it is necessary to go to the military commissariats. The rayon military commissariat where the insured lives issues a certificate for presentation to the notary's office. On the basis of this certificate, a decision is made on the question of inheritance of the insurance sum. After this, documents are submitted to the rayon state insurance inspection. I will note that after the submission of all necessary documents, the insurance sum must be paid in a seven-day period.

[Anisko] And where must servicemen go who sustained wounds, concussions, or severe injuries?

[Bay] To the appropriate military medical commissions. In doing this, it should be kept in mind that for conscripted servicemen, the insurance benefit for wounds (severe injury) will be reimbursed at the place of residence after discharge into the reserve. And the certificate issued by the VVK [Military Medical Commission] will serve as a guarantee for receiving the insurance sum.

The question of payment of "insurance" in connection with the discharge of these servicemen for reasons of health will also be decided in a similar procedure.

As for servicemen who became invalids before the expiration of one year after discharge from the service, then they also must go to the military commissariat in the area of residence to draw up the payment of the insurance sum.

[Anisko] Will not the commanders and chiefs who are responsible for the preservation of the life and health of servicemen now have to pay the insurance out of their own pocket?

[Bay] The third paragraph of Order No. 50 actually speaks of making those materially responsible who are guilty of the death of or damage to the health of servicemen (reservists). Here the Ukase of the Presidium of the USSR Supreme Soviet of 13 January 1984 comes into force; it was published in USSR Minister of Defense Order No. 85 of that same year.

But I would like to turn particular attention to the fact that the minister of defense first and foremost required that appropriate officials work up and implement measures aimed at a resolute strengthening of military discipline and law and order in the troops and in the Navy and the prevention of cases of damage to health and the death of servicemen and reservists who were activated.

[Anisko] We have been talking thus far about people who had a misfortune this year. But what about those whose insurance events occurred before 1 January 1991?

[Bay] In connection with the ukase of the president of the USSR of 15 November 1990 concerning material compensation to families for losses associated with the death of servicemen and military builders in peacetime, a draft decree of the USSR Supreme Soviet has already been prepared in which, in particular, provision is made for material compensation for families of those servicemen who perished (died) in peacetime.

The order and terms of payment of this compensation will be determined by the USSR Cabinet of Ministers. It is planned to begin making payments this year.

Expanded Session of Military Procurement Collegium Held

91UM0387C Moscow RABOCHAYA TRIBUNA in Russian 19 Feb 91 p 4

[Unattributed article: "There Was No Improvement"]

[Text] Unfortunately, last year was also not a turning point for discipline in the Armed Forces: Law violations increased by a third and the number of participants in crimes increased by more than a half.

That is the way Lieutenant General of Justice A. Katusev, the chief military prosecutor and deputy USSR Procurator General, characterized the state of affairs with legality and crime in the troops at a meeting of an expanded collegium of the Main Military Procurement.

A lot of things are lacking for well-being: personnel for the procurator-investigative staff and more well-thought-out work by commanders and political workers in the organization of the service and daily life of the personnel. Including also a stable internal political situation in the country. It is for this reason that evasion of military service, theft of small arms and ammunition, conflicts in subunits for interethnic reasons, and the death of servicemen at the hands of extremists have become more frequent.

Participating in the collegium were USSR Procurator General N. Trubin; General of the Army K. Kochetov, first deputy USSR minister of defense; USSR people's deputies; and representatives of the USSR KGB and Ministry of Internal Affairs.

Troop Tests Show Design Flaws in BMP-3

91um0345A Moscow KRASNAYA ZVEZDA in Russian
12 Feb 91 First Edition p 2

[Article by Capt. A. Yegorov, "BMP-3. How to Bring a Vehicle without Analog in Other Armies up to Specifications."]

[Text] After military parades, if one were to pick out the equipment models which attracted the greatest attention of experts, after 9 May of last year the victor would likely have been the outwardly modest BMP-3, which is in many aspects similar to its predecessors, but at the same time is vitally different from them. After the parade in Red Square, a kind of parade of its photos ensued on the pages of many Western military publications. Even in very businesslike texts there was place for epithets expressing the very highest assessment of the "queen of the infantry."

But I knew that in their estimates of the new infantry fighting vehicle, our own experts were much more restrained. To be sure, many with whom I spoke said that this vehicle seems to combine the strong points of the BMP-1 and BMP-2, and even of a medium tank, in terms of fire power. Its potential is high. But it is hard to get everything out of the vehicle that has been put there by the designers. People whom I asked to assess the BMP-3 were somewhat divided: on the one hand, they acknowledged its merits, on the other, they could not get by without some distressing "buts."

Thus I flew to Siberia convinced that one could now speak of the BMP-3 only in a critical vein.

The first to shake my bias was the Siberian Military District Deputy Commander for Armaments, Major-General Yu. Dutov.

He said, "In terms of mobility and armament, the BMP-3 surpasses all foreign models. But it is quite natural that some things in it require a shakedown, for this vehicle is quite new."

The opinion of the First Deputy Military District Commander, Lieutenant-General V. Katanayev, who heads the Interdepartmental Commission for Troop Testing of the vehicle, was harsher. He believes that this vehicle should be sent to the line units only after elimination of all shortcomings found in the testing process.

I sat down at the controls of the "three" with very mixed feelings. Should I perhaps begin with the words: "I am making my report from a rough, untreated vehicle, which the Defense Ministry is foisting on the Army?"

...It started off smoothly, one might say grandiosely from its place, although it was clear that this was not due to me. All that was required of me, after pressing the gas pedal, was to shift the gear shift from one fixed position to another. The operation was so simple that I was even irritated: the ability to work with the main clutch (GF), in which I had taken such pride back in military school,

was not necessary. There was no GF here. There were only two pedals at my feet, the emergency brake and gas pedal.

After switching to a higher gear, I "braced myself" and ... noticed that I felt nothing at all in this armored equipment—I was pushed back very lightly into my seat. I had to admit that this "Zhiguli" [Soviet limousine] feeling was doubly enjoyable. It was supplemented by the awareness of a solid weight (about 16 tons), so easily gaining in speed, and by polite appreciation of the engine, which was more powerful than on earlier vehicles.

I had also been told that the "three" cannot tow. This was explained by the presence of a hydromechanical transmission, which differs from the mechanical (BMP-1, BMP-2) in that an additional element has been introduced to the gearbox, a hydrodynamic transformer. By virtue of this transformer there is no hard connection between the driving and driven elements of the gearbox. A special fluid serves here as the "drive belt." The reliability of this transmission is potentially higher than that of a mechanical one. The vehicle not only starts smoothly, but also reacts automatically to a change in the surface of the ground under its tracks; it does not stall even if it pushes against an obstacle at speed.

When I was told this, I didn't believe it. And several hundred spurred horses would not cut the crust of ice from a road with their hooves! But then I got into the vehicle, switched to first gear, and immediately depressed the fuel pedal to the floor. The vehicle screeched and then was running at a gallop. But... smoothly. The gear shift clicked. The speed was 40, 50 kilometers an hour... Over a slippery road. And not the slightest hint of drift.

In general my impression of driving was that it was superior. There was nothing you could say. And I decided that the time had come to have a look around.

Of course one cannot speak of any similarity to the "interior" of the BMP-2 here. In "my" vehicle everything was different. For example, the mechanic-driver's seat is now in the middle. What brought about this shift? First, it simplifies control. I could feel this instantly, since it was not necessary to guess where the right track belt was located, and whether it was going to land, for example, on the track of a bridge. Secondly, the mechanic-driver had been "moved away" from the track, where, for the entire Afghan war, he had been a hostage to any antitank mine. Third, to the left and right of him now were his comrade machinegunners, and not the bulkhead of an engine bursting with strain, something which is psychologically important in battle.

Apropos of this, the changed layout of the "three" makes it possible to unite not only the mechanic-driver and the machinegunners. The fuel tank, which had divided the assault force in two in the BMP-2, is here positioned more rationally, and therefore, the "living space" has been markedly increased and comfort improved.

As for the vehicle commander, his place is still in the turret, but the effectiveness of his command of the squad has been increased through special indicator systems (target designation with arrows using an illuminated panel, etc.). He has an improved system for correcting the actions of the gunner-operator and for redundancy when it is necessary to switch the entire weapons system, the coaxial guns and the machinegun, to himself.

But then there is the dismount of the assault force... It seemed to me that it has become more difficult here, since the hatches open upward and the assault force on the roof comes under fire. And also, it is high. With full gear, and in the winter it is not easy to get down from such a height. And using the step intended for this, even if it is fairly large, seems problematic.

I expressed my doubts in this regard to the Chief of the Military Representation at source-manufacturing plant, Colonel A. Fedorov.

Anatoliy Yakovlevich said, "Many experiments have demonstrated adequately high effectiveness of dismount. As for convenience, you have to dispense with some things when the survivability of the vehicle, and consequently of the crew, is at stake. The engine should be protected from a frontal hit, otherwise a vehicle stopped on the battlefield is doomed."

It was hard to argue with this. As it was also with statements in a different context:

"No one doubts the potential capabilities of the vehicle. It is surprisingly mobile and practically never gets stuck, and the guns can hit the bullseye. The issue is insufficient reliability of operation."

"When firing the gun, cracks appeared on its trunnions in one of the vehicles. It was necessary to suspend use of the weapon."

"The clearance-varying mechanism is unreliable."

"How can we assess the ease-of-repair of the BMP-3 if welding equipment capable of welding aluminum is not shipped to the line units; if it is necessary to remove the engine in order to repair the mechanism of the hydraulic-displacement transmission (which turns the vehicle—A.Y.)..."

These are some of the questions which assailed the Chief Designer of the vehicle, A. Nikonov, and his colleagues at a meeting with soldiers and officers of the regiment. In general the talk could be considered quite normal, for this was the shakedown of a practically new item. Each case of detection of a defect ultimately "works" to improve the design. But...

"We are well aware of this, but after troop testing comes the day-to-day training in an ordinary combat unit. Now imagine that in this combat regiment several vehicles do not fire because of a design error..." noted division commander, Major-General A. Zatynayko.

The concern of the division commander is understandable; the combat training plan has to be met. But shakedown of a vehicle is not entered in any plans. Just one repair of broken-down items by the manufacturing plant knocks the regiment out of its combat training rhythm for many weeks. And if an entire division is equipped with such vehicles?

Still, those who are prepared to call into question all the work to develop the BMP-3, merely because there are more incidents of failures in it than we would like—are they correct?

Every single expert with whom I got a chance to talk says that no, the work is taking its normal course and differs little from the shakedown of previous models. By way of proof, a senior officer of a scientific-technical committee of the Main Armor Directorate of the USSR Ministry of Defense, Lieutenant-Colonel V. Salyutin, cited figures reflecting, so to speak, the chronology of failures of the BMP-3 for every thousand kilometers driven. In 1986, 1988, and 1990 there were 17.1; 4.6, and 2.46 respectively. According to plan, by the fifth year of production this index should be reduced to one.

Such is the logic of figures. One cannot but call attention to the following circumstance: those BMP-3s which are going to a unit from the plant after improvements are counted in the "combat" group and stored in crates. But they use the old vehicles, which do not have the latest improvements. This of course distorts the general picture.

The line units are feeling an urgent shortage of specialists trained to service and maintain the BMP-3. The units also lack the corresponding training equipment, although it was developed in parallel with the new vehicle.

Major-General V. Bryzgov, Doctor of Technical Sciences and professor, called attention to the fact that we do not always thoughtfully approach the manning of equipment test companies. This has also happened with respect to the BMP-3. The company was not formed from young soldiers, as would have been logical, but from those who were ending their service. After concluding testing they all were discharged to the reserves. These motorized rifle troops covered about 8 thousand kilometers with the vehicles through the mountains of Uzbekistan and the snows of Siberia, and became aces. And then they departed, never having transferred their experience to the young soldiers.

It often happens that representatives of the line units not unjustly accuse the "defense sphere" of slow work rates and of tardiness in correcting specific flaws in the tested equipment models. But life obliges us to carefully listen also to the representatives of industry, who accuse the military of violating the operating rules and the elementary requirements of manuals. As the chief of a department of military research and development, Candidate of Technical Sciences Colonel V. Tipikin pointed out, even an outstanding vehicle can suffer a hard fate due to

confusion and disruption of coordination. I tried to systematize certain proposals which, in the view of this journalist, are of practical interest. I have found that it is necessary:

- to expand the front of operation of the BMP-3, which can be done by transferring all these vehicles from combat subunits to training units, where they will be used with maximum intensity;
- to train a group of specialists at accelerated courses in the manufacturing plant (the idea of the chief designer) and then train cadres at special courses in the district staff;
- to return to the regiment all officers who participated in testing of the BMP-3 (proposal of Lieutenant-Colonel v. Salyutin);
- for the entire shakedown period, to create conditions of priority maintenance of the equipment by teams from the manufacturing plant in order to reduce the time required for repairs.

KRASNAYA ZVEZDA once conducted a special poll among officers in Afghanistan in order to learn about the combat qualities of the BMP-2. They spoke of this vehicle with warmth and affection. They noted its fire power, high off-road capability ("Look down the hill where it went and your hat will fall off."), forgiveness of the mistakes of young mechanic-drivers and weapons operators, reliability, and ease of maintenance.

All this undoubtedly should be "inherited" by a vehicle of significantly higher class, the BMP-3, which is adapted for airdrops, which is amphibious (the marine infantry rates it highly for this), which can squat down behind a hill, and catch a UAZ on a dirt road, which is capable of becoming the mother of a whole family of vehicles, command, repair-and-evacuation, and so on. It is important only that we bring it up more quickly to the specifications which combat equipment of the 21st century must possess.

Ground Troops Reform: Focus on Armor

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[Interview with Deputy Minister of Defense Industry Mikhail Aleksandrovich Zakharov, Chief of the Main Armor Directorate of the USSR Ministry of Defense Colonel-General Aleksandr Aleksandrovich Galkin, the First Deputy Chief of the GBTU [Main Armor Directorate] Major-General Nikolay Alekseyevich Zhuravlev, the Chief of the Military Academy of Armor Troops Professor Colonel-General Vyacheslav Mitrofanovich Gordiyenko, Director of the VNII [All-Union Scientific Research Institute], Doctor of Technical Science, Professor Eduard Konstantinovich Potemkin, Chief of a Military NII [Scientific Research Institute], Doctor of Technical Science, Professor Major-General Viktor Nikolayevich Bryzgov by KRASNAYA ZVEZDA Correspondent Captain A. Yegorov, under the rubric: "Round Table: Military Reform and the Ground Troops": "Armor and People"]

[Text] KRASNAYA ZVEZDA readers (the March 19, 1991 issue) have already become acquainted with certain problems and the prospects for development of the Strategic Missile Troops. Today representatives of the most numerous branch of the Armed Forces—the Ground Troops—are sitting at the editorial staff's round table. Their focus of attention is tanks and the tank industry.

The following personnel participated in the conversation: Deputy Minister of the Defense Industry Mikhail Aleksandrovich Zakharov; Chief of the Main Armor Directorate of the USSR Ministry of Defense Colonel-General Aleksandr Aleksandrovich Galkin; First Deputy Chief of the GBTU [Main Armor Directorate] Major-General Nikolay Alekseyevich Zhuravlev; Chief of the Military Armored Troops Academy, Professor, Colonel-General Vyacheslav Mitrofanovich Gordiyenko; Director of the VNII [All-Union Scientific Research Institute], Doctor of Technical Science, Professor Eduard Konstantinovich Potemkin; Chief of a Military NII [Scientific Research Institute], Doctor of Technical Science, Professor Major-General Viktor Nikolayevich Bryzgov.

[Yegorov] Judging by the draft military reform concept developed by the USSR Ministry of Defense, a Ground Troops strength reduction of 10-12 percent is being proposed. There will be fewer armies, corps, and divisions. During the reorganization of subunits, units, corps, and armies, primary efforts will be concentrated on increasing their defensive might and at the same time their capability must be preserved for rapid deployment in the event of an increased military threat.

Naturally, all combat arms and special troops that comprise this branch of the Armed Forces will undergo changes during the course of reform. But there is something that is, as it were, its core and the base of improvement and development. That is the Tank Troops. It is going through difficult times just like the rest of our army. Besides, tanks are becoming the object of various types of speculation for those people who think that we are still threatening someone. Just what do we actually have if we take a look at the problem: people and armor?

[Galkin] I want to immediately state more precisely: Today it would be incorrect to examine the Tank Troops in isolation as an independent combat arm. Just like the Motorized-rifle Troops, they comprise the foundation of the Ground Troops, all of whose components have sort of "sprouted" tanks. Tanks have become their striking power.

[Yegorov] But today do we have a right to talk about tanks as the main striking power of the Ground Troops? The new Soviet military doctrine has assigned the role of a defensive weapon to them.

[Galkin] Tanks have been the striking power and they remain the striking power. This is objective: They preserve all the signs of an offensive, as we are now

accustomed to say, weapon—powerful armament, reliable armor protection, and high mobility and cross-country capability. In the event of aggression, we naturally do not plan to be restricted to defensive operations, because it is irrational to yield the initiative to the enemy. Having adopted a defensive doctrine, we have assumed the obligation not to attack first—that is the essence of it.

[Yegorov] But nevertheless: a tank on the defensive.... The opinion exists that this is nothing more than an excellent target on the battlefield....

[Gordiyenko] We think otherwise. Either in offensive or on the defensive, the tank is the main type of weapon. Furthermore, it is the least vulnerable and most stable under conditions of the use of weapons of mass destruction. And tank defense disposed in depth is practically insurmountable for an enemy.

[Yegorov] However, it seems to me that the Persian Gulf experience reveals something else?

[Gordiyenko] I would like to caution against hasty conclusions during the analysis of combat operations on the Arabian Peninsula. There both sides actually avoided serious ground engagements—the multinational force commanders, not without reason, hoped to achieve victory without them and I think the Iraqis doomed themselves to passivity due to a loss of command and control and their defenselessness against air strikes. Furthermore, the experience of this war also convinces us that it is impossible to execute all missions without large-scale use of ground troops. The coalition forces commanders concentrated more than 5,000 pieces of armor. And this was taking into account that the Americans and their allies calculated from the very beginning—and, as it has already been said, not without reason—on using aircraft strikes to destroy Iraqi tanks with impunity.

And in general we must not examine the combat capabilities of any type of equipment or weaponry in isolation or outside their coordination with other branches or combat arms of the armed forces.

Our military reform is oriented on this—complex, harmonious, scientifically proportioned development of the Armed Forces. And tanks must occupy a precisely defined place in this complex.

[Yegorov] But will our transformed army be so harmonious?

[Galkin] We all know that we are reducing the total number of tanks. In accordance with the draft military reform concept, we will have 187 tanks remaining in a motorized-rifle division instead of 220. We will have 296 tanks in a tank division instead of 320. This brings the structure of the Ground Troops nearer to the essence of the new military doctrine and meets the spirit of recently signed international agreements but does not paralyze the aggressiveness of troops on the battlefield and does

not deprive the commander of the initiative, contrary to the assertions of some insufficiently qualified people.

[Yegorov] In that case, can we consider the mentioned figures as optimal for our, so to speak, active armored vehicle fleet? And in general does the point of reasonable sufficiency exist about which there are so many disputes in the mass media?

[Galkin] Of course, it is impossible to establish once and for all a hard and fast ceiling for the production of weapons and equipment. Today, we can say that the military-political situation in the world is favorably disposed toward us thanks to a whole series of unilateral initiatives of the Soviet Government. Therefore, we think that the weapons we have, including armor, are adequate to make us feel secure. Obviously, the meaning of military reform is that we must feel secure even if the situation radically changes. In order to do this, we need to strictly follow the main directions of the draft reform both in the area of military technical policy and in the context of optimizing the authorized structure of the troops. However, I think that all of us sitting here today are seriously concerned about the fact that the direction along which military science and economics must move does not really coincide with what has been planned in the draft. Budget appropriations have been drastically reduced without a law on conversion or a precise technical policy. The tank industry has been reduced by a factor of two and the production of infantry fighting vehicles has been cut by a factor of five. This ultimately results in a loss of the tank industry's mobilization capabilities.

[Yegorov] But we have more tanks than all of the NATO countries put together. Is it not logical to reduce appropriations in this case?

[Galkin] The destruction of obsolete vehicles is logical. We have no argument with that. Although we could also argue if we place on the scales the fact that there are combat vehicles in such countries as Pakistan (more than 1,800), Iran (more than 1,300), Japan (1,220), Israel (nearly 3,800), Sweden (nearly 1,000), Switzerland (870), Saudi Arabia (nearly 800), and Austria (350) besides the NATO countries' tanks.... But once the situation in the world had changed, our doctrine also changed, and we say: it is irrational to maintain the old tank fleet. That is why the T-54's and T-55's have been destroyed. But we must not reduce appropriations for the simple reason that our entire fleet is not modern while at the same time NATO tank fleets are primarily equipped with 1970's and 1980's vintage vehicles.

[Bryzgov] Here, we need to consider that realization of existing technical solutions to increase the combat specifications of the Leopard 2 and the M-1 Abrams (installation of a new 140 mm gun, electronic systems, and new generation reactive armor protective devices) with no adequate reaction from our side makes this gap even more substantial and will ultimately result in the T-72's and T-80's becoming noncompetitive.

[Yegorov] Aleksandr Aleksandrovich, in that case can we consider the large number of tanks that have been built unjustifiable and can we consider the fact that their current competitiveness is hanging by a thread to be the result of an error contained in the military scientific-technical policy of past years?

[Galkin] What does an unjustifiably large number mean? It is easier to accuse your predecessors of shortsightedness. A concept exists—strategic expediency—which dictates its own “rules of the game.”

[Gordiyenko] Until quite recently, the build-up of tank potential was characteristic for all economically and technologically developed countries and not just for us. But in contrast to the NATO countries, and more so the United States, the USSR in accordance with its geographic position had to insure defensive sufficiency on several TVD's [Theaters of Military Operations] which was also the reason for the large number of Ground Troops and the correspondingly greater number of tank corps. The Americans have no need for that many vehicles. But this does not at all signify that they cannot set up production for the required numbers when necessary. During a mobilization deployment (over the course of six months), U.S. industry is capable of producing up to 50,000 tanks per year. Western Europe's capacity is 25,000. You will agree that these numbers are eloquent. Finally there is one other quite important circumstance. We need to consider the correlation in manpower resources. If you add up the total population of the United States and Western Europe, it is twice as large as the USSR's population. This is a fact which must affect our military policy. Only history will tell whether this was correct or not. So, naturally, let us hold off on global conclusions.

[Galkin] And the time has not come to finally part with tanks and the fleet must be modern. To do this requires its continuous renewal with the latest models. That is the goal facing us. However, there is a catastrophic shortage of resources to attain this goal.

[Zakharov] Moreover, if appropriations continue to be cut at the rates at which they are occurring right now, we will utterly ruin our entire defense industry. We will ruin it precisely because the kind of perestroika, that is reform of the defense industry, that leaders at all possible levels frequently call for from rostrums will not lead us there. Just what is happening? The 1991 armored vehicle production plan for factories is being approved very late. Materials and components are ordered and the entire economy and enterprises' profits are planned based on it. But it is being reduced once again literally in February. And this means that the 1.8 billion rubles which we plan to earn by reducing the defense industry is being consumed in our ministry's losses. Purchased materials lie in depots and do not participate in production. The situation is the same with components. A new problem is—what do we assign the workers to do and how do we pay them their wages? And later, even if we find work for them, we need to teach people a new specialty. New

vehicles require new equipment. Where do we install it and in that case what do we do with the mobilization capabilities? We cannot simply remove them....

Or take this “surprise”: The Cabinet decision to suddenly place the ministers of the defense industries on the same level with ordinary machine building. Why? To make it economically unprofitable to fulfill defense orders? Well, tell me what plant director will dare to undertake production of an armored transporter now if, according to complications and submitted demands, its cost is several orders of magnitude higher than a tractor? Besides, you can sell a tractor directly abroad but you can never directly sell a BTR [armored personnel carrier].

[Potemkin] The President of the USSR decrees have been issued that define enterprises' deductions to various funds. It seems that everything is clear here. But our customer, the USSR Ministry of Defense, does not have the resources for deductions in the required amounts. And that is why there is only 14.2 percent of the planned 26 percent going into the social security fund and there is nothing going into the fund to stabilize the economy.... A substantial—a factor of 1.6—increase in the price of materials has occurred and safety and production costs have increased by a factor of four. The Ministry of Defense does not have the money to cover the ratio. So it turns out that we are not even equal to ordinary machine building and we have been placed under frankly discriminatory conditions as a result of the introduction of additional obligations to the state.

[Galkin] This year financing of scientific research and experimental design work (NIOKR) has also been reduced by half. As a result, some of the work has been postponed until 1992 and has a quite illusory future and other work has been shut down altogether.

[Potemkin] And now let us once again turn to the draft military reform concept which stipulates future upgrades for the Ground Troops with new modern models of weapons and equipment and the introduction of automated command and control systems. Of course, this wording did not end up in the document by chance. The experience of local conflicts and the logic of the development of military science argues that modern war is not simply a war of motors but of motors equipped with highly effectively weaponry and “intellect”. This is how the West is proceeding, in particular. Powerful imaging infrared sensors immediately entered the inventory as soon as they needed to increase the effectiveness of fire control systems. Later dynamic protection systems appeared that substantially increased the level of survivability of armored vehicles in combat. Finally, we have witnessed the use of satellites for command and control of ground troops during the war in the Middle East....

Can we ignore all of this while developing domestically-produced vehicles? Of course not. And to cut appropriations for this work—signifies the destruction of the potential of the military industrial complex's scientific research subdivisions.

[Yegorov] What do you think, what are the reasons for such rash governmental decisions?

[Zakharov] The government is carrying out the will of the people's deputies. And the deputies in their turn are frequently guided by a striving for momentary advantages. This appears to be such a simple matter as to take and redirect the defense industry's excess capacity to the production of "civilian" goods. But they are not capable of assessing the entire scope of the problem due to their incompetence.

[Potemkin] It is finally time to understand that strategic defense issues cannot be decided through a majority vote of deputies and that the elaboration of military programs needs to be based on scientifically and technically grounded arguments alone.

[Bryzgov] By the way, we can also understand the deputies. Like all people, they are subjected to the attacks of this same mass media. You will agree that it is difficult for the uninitiated person to discern the truth if they keep saying over and over again from all sides that the Soviet defense complex is a "monster" that confronts the peace-loving members of NATO. All the more so since this is said using language that is accessible to everyone. Say they placed an illustration in MOSKOVSKIYE NOVOSTI where they drew an entire armored column of T-55, T-62, T-64, T-72, and T-80 tanks in the background of just two tanks—the M-60A3 and the M-1 Abrams. They said, compare for yourselves: Who has more. Is that persuasive? But why are our vehicles compared just with American vehicles if the NATO bloc confronts the Soviet Union? Where are the Leopard 2's, the Challenger, and the AMX-30? But then today we are producing just the T-72 and the T-80. If our old vehicles are placed alongside them, why are the NATO M-48, Patton III, Centurion, Chieftain, Vickers, Conqueror, Leopard 1, and the M-551 Sheridan not placed alongside them? This is how disinformation arises which ultimately can cost us dearly.

In 1988, while examining the problems of international relations, world policy, and diplomacy, MEZHDUNARODNAYA ZHIZN magazine published two of Candidate of economic science V. Shlykov's large articles under the title "And Our Tanks are Fast" (No. 9) and "Armor Is Sturdy: Tank Asymmetries and Real Security" (No. 11).

"Armor is sturdy, stereotypes are lasting, and some people depart from them with difficulty," wrote the author and the articles' factual material convinced readers: The USSR, "having flexed" its steel muscles, does not wish to restore the balance of power in the world (V. Shlykov called for the total termination of the Tank Troops) while in 1989 the Pentagon announced the termination of financing for development of a new fourth generation tank.

More than two years have passed since this article was published. Just what has occurred during this time?

The Soviet Union has announced a unilateral reduction of its Armed Forces by 500,000 men, 10,000 tanks, 8,500 artillery systems, and 820 combat aircraft. Troops are being withdrawn from Eastern Europe. The Conventional Forces Treaty, which eliminates tank asymmetry in Europe, has been signed in Paris.... At the same time, no termination in work is occurring in the United States. Moreover, appropriations for future development are increasing in current prices.

Despite V. Shlykov's assurances, the FRG did not cease production of the Leopard 2 in 1990 and they propose increasing the total number to 2,125, thus equipping all of their ground Troops tank battalions with them.

In France, the fourth generation LeClerc tank has already been developed and accepted into the inventory.

[Bryzgov] Yes, the Americans have reduced appropriations for the M-1 program from \$1.4 to \$1.3 billion in 1991. But the U.S. Army has practically already been reequipped. Our appropriations for the production of infantry fighting vehicles have been reduced by more than a factor of five. The Americans have increased the amount for the Bradley program from \$600 to \$699 million. At the same time, the United States as before is spending substantial resources on modernizing models that are already in the inventory. During the last ten years, these appropriations have increased by a factor of more than 3.1 and their share of NIOKR appropriations have increased by a factor of 1.4. Appropriations for basic research have increased by a factor of 1.5 and for future development by a factor of 1.7.

[Potemkin] We are not considering that the United States is also creating reserve production capacity for itself by selling licenses abroad in this favorable background for industry.

[Galkin] And what about exports? In 1989, they totaled \$1.1 billion just for armored vehicles in the United States. This is 20 percent of the total volume of military production. Right now they are discussing the issue of delivering M-1 Abrams tanks to Pakistan and Saudi Arabia. Beginning in 1991, they are planning to deliver components to assemble the M-1A1 tank in Egypt. This will not only stimulate production of armored vehicles and the firms' vested interests but will also promote the increase of the country's mobilization readiness.

[Zakharov] And this is correct. This is how it should be if the goal is to build a strong state. A strong state is a powerful economy and a strong army equipped with modern weaponry. They live by this law across the ocean. We are betting on a new experiment: We are depriving industry of the resources and conditions for development, we are increasing psychological pressure on workers that is eliminating any desire to work and in so doing we are observing: Is industry being ruined or not? Well it surely will be ruined! But we want KRASNAYA ZVEZDA readers to know that the path on which the domestic tank industry is currently embarked will result in undesirable consequences.

[Bryzgov] Maybe, I am repeating myself, but I will say: We do not oppose the destruction of old vehicles. That is correct. We do not agree with the unjustifiably drastic reduction of resources or, speaking the language of science, with the divergence of appropriations and a viable military scientific technical policy which results in a disruption of the time periods to reequip the troops and ruins the armored weapons development program in a qualitative regard. I stress this because the destruction of parity is inevitable under these conditions.

[Potemkin] Processes exist from which it is impossible to exclude ourselves without bearing losses. The tank industry is such a process. That is precisely how it has dealt with us. There has been no better school in the world than the Soviet school and I dare to hope that there has not been since the day the first T-34 came off the assembly line.

[Gordiyenko] A Syrian armed forces division that participated in combat operations for the liberation of Kuwait was equipped with our old T-62's. The division completed a 300 kilometer march, was loaded on a maritime transport ship, and was transferred to the southern Arabian Peninsula. Later, it completed a 1,000 kilometer march to the assembly area. In so doing, not one vehicle experienced any problems.

[Galkin] As for the reliability of the M-1 Abrams, it turned out to be quite a bit lower than that of even obsolete Soviet-made tanks. In the sands of Kuwait, the Abrams was so poor that the Americans summoned representatives of the tank industry there.

[Zakharov] Pay attention: It is not simply that today our T-55 tanks are being modernized throughout the world. The Americans, British, and Germans are installing new fire control systems and other things in them and are increasing an obsolete vehicle's combat properties by a factor of more than 1.5.

[Potemkin] And now we are being forced to release the people who developed these vehicles because the level of their wages is lower than the salaries of the people who build them. Entire KB's [Design Bureaus] are disintegrating. There is a similar situation in specialized institutes and technicums which produced specialists for the defense industry.

[Zakharov] With this unraveling, in two years there will be no scientists left in military NII's. And we already have bitter experience. Although let us recall how we restored tank production at the Kirov Plant after having been sobered by the absurd disarmament of the 1960's. We restored it over the course of 10 years. Right now we will not be able to set it right in 10 years—not that level of weaponry. That means we will be in a hopeless situation.

[Potemkin] There is other, no less eloquent, evidence of the fact that it is irrational to approach reform of the defense industry with your eyes closed, and furthermore

to form a system that is capable of economically overwhelming it. Yes and why do this if proper conversion with the utilization of the colossal military vehicle construction experience permits us to successfully combine the interests of defense and the national economy. Remove the burden of backbreaking taxes from the defense industry, do not force them to exchange high technologies for a "mixture" of various automated knitting equipment and packaging lines for canned goods, insure (of course, proceeding from the advisability) financing, do not deprive us of hard currency because we cannot purchase a single progressive lathe or computer without it and, after a short period of time (a transition period is needed!), our firm alone will produce many millions of rubles for the country. The institute already has 15 variations of equipment that can be used for the national economy and which can be built using written-off equipment. There are actual customers. We are ready to work in the direction of so-called dual technologies. That is, to develop a solution for the use of written-off production capacity in the national economy while simultaneously developing military equipment. It is a question of developing new power plants and base vehicles and about universal tracked chassis for various types of prime movers and engineering vehicles with a wide selection of detachable equipment, including for the timber and mining industries. I am already not talking about unique solutions which we have in the rescue and recovery complex that are intended for work under emergency conditions and where there is chemical contamination. These vehicles have been tested by Chernobyl. There is adequately powerful potential and established production ties in the defense industry to fulfill these plans.

[Zakharov] We also agree with the curtailment of series production for the sake of the development of science. Only here we also need to determine reasonable limits because it is impossible to qualitatively produce a new vehicle without any series production at all. Incidentally, KRASNAYA ZVEZDA wrote about this in an article on the BMP-3. In short, today we have all of the conditions in order for conversion not to fail while strengthening defense. There is still time. We just need a well-thought-out approach to this matter.

[Zhuravlev] In this situation you will agree that it is quite difficult to preserve (We are already not talking about development) the capabilities of GBTU-subordinated enterprises. But we are independently attempting to become involved with converting old armored equipment for the needs of the national economy, although still in small amounts. In 1989, we manufactured 29 models at a cost of R1 million. In 1990, we increased production and manufactured 225 of them. We made R8 million on them. We had planned 745 units for this year (But this is if they do not once again cut our appropriations). Of course, the numbers are small. We cannot make it without assistance on a solid level from Gosplan and the USSR Cabinet of Ministers. But then, we will

somehow compensate for the assets withdrawn from repair enterprises and we will refrain from firing workers.

[Yegorov] How will it turn out: are any appropriations reductions whatsoever for the tank industry counter-indicative to military reform? I think that this is hardly the conclusion we want our readers to draw from our conversation.

[Gordiyenko] But the new military doctrine, with the approval that has been perceived throughout the world, and the military reform concept have tasked us with a quite definite task—to reequip the troops with the highest quality equipment. This costs money. We need to resolve where we will get it—by reallocating resources within the department or by increasing finances through new allocations from the budget. The task has been defined to reduce the Armed Forces by optimizing the organizational-organic structure. Two lines on a piece of paper, but you can understand what they represent if you recall that a combined arms formation of any scale (company, regiment, or division) is a complex, multi-component structure which consists of various types of military vehicles: combat—to defeat the enemy, support (tractors, armored reconnaissance vehicles, KShM's [command-staff vehicles])—to repair combat vehicles, conduct reconnaissance, transport ammunition, etc., and auxiliary (electrical generators, mobile kitchens, etc.). Analysis of combat experience demonstrates that optimizing the support asset TO&Es means to increase them by a factor of two to three and to significantly increase the entire tactical-technical support system. This is caused by the presence of modern weapons that permit attacks throughout the entire depth of the defense which will result in the loss of not only combat resources but also support resources.

[Zakharov] Life suggests that it is impossible to delay formation of repair and alignment services of primary tank systems, primarily fire control systems. But for the T-80—we also need engine and transmission compartment servicing.... This also costs money.

[Bryzgov] The new authorized organizational structure must ultimately determine the optimal number of tractors in a repair and recovery service of both a combined-arms and an operational level. Today it is extremely low: One tractor for 40-45 armored vehicles and facilities based on them. I think that this number should not exceed 10.

[Zakharov] We do not know if more or less money will be needed to attain these goals. But I know that no one has been involved with this problem. This certainly also worries me. We are simply squandering the country's property for the sake of momentary benefits. But people should know, and I am stating this officially, that we have the strength, bright minds, and desire to work. Nothing has been lost....

[Zhuravlev] Jointly with the Ministry of the Defense Industry, we have developed a precise concept of the

future development of scientific research and experimental design work which can insure the achievement of the most definite advantages in the matter of modern tank design by the year 2000.

[Galkin] We need only one thing: to organize the matter. And then the metal in the voice which appeared among various representatives of the West in the conversation with us will suddenly melt.

Optimization of the authorized organizational structures of the forces and command and control organs, development of a promising military technical policy and equipping the army with modern weaponry and military equipment.... I think it is normal that the discussion of problems associated with the realization of these Armed Forces reform concepts and with the theories and practices of the domestic tank industry became so sharp and impartial. The people who gathered at the round table are responsible for the state of affairs and the state's defense capability depends on them. Today there is no other approach to the problems that trouble us all and there cannot be.

Increasing Tank Survivability

91UM0415A Moscow TEKHNICA I VOORUZHENIYE in Russian No 12, Dec 90 pp 4-6, C4

[Article by Lieutenant Colonel B. Kurkov: "Increasing Tank Survivability"]

[Text] According to foreign military experts, at the present time one of the most acute problems in the development of weapons and military equipment is insuring their survivability, that is, the characteristic of preserving or rapidly renewing combat capability under conditions of combat use. They think this is caused by the fact that ground forces weapon system development is occurring along two strongly pronounced lines: The gradual transition of all combat arms to self-propelled armored vehicles and systems (as a result of which the number of armored vehicles is increasing) and continuous improvement of existing and development of fundamentally new, more effective systems to combat them. Foreign experts have recently been inclined toward using not only specialized anti-tank systems but also other types of weapons, including nuclear weapons, to destroy armored vehicles.

The difficulties of insuring the required level of tank and armored personnel vehicle survivability are caused not only by the rapid development of systems to destroy them but also by the very strict weight and size restrictions that have been applied to them. Therefore, foreign countries are primarily examining two variations to resolve this problem. The first variation consists of improving equipment design and also introducing methods and techniques (including those conducted by the crew) that permit them to reduce the tank's hit probability. The second variation consists of measures

associated with increasing the vehicle's damage resistance and protective characteristics to affect the warheads that hit it.

Design solutions directed at reducing combat vehicle hit probability are called indirect (oblique) protection. They include reducing its size, increasing its mobility and reducing the time it is under fire, active destruction countermeasures, and also the use of camouflage in a broad range (in the visible, thermal, radar, and other parts of the spectrum).

According to foreign experts, they can reduce the size of armored vehicles by using compact internal equipment elements and by increasing layout density. They think that automated systems can carry out a number of crew functions (target detection, making initial adjustments, and loading and directing weapons). As a result, one man can control a tank. They anticipate the development of unmanned combat vehicles in the future.

They think they can significantly reduce the size of the frontal tank projection by rejecting the traditional layout diagram according to which the overwhelming majority of tanks are manufactured today. They suggest that in this case all equipment, including weapons, munitions, fuel tanks (except for the crew and the most sensitive electronic equipment), will be located outside the heavily armored compartment. Despite the fact that using this layout increases the probability of the tank losing its combat capability as a result of damage to weapons, destruction of fuel or the combat load, and failure of automatic weapons loading systems, we will manage to save the crew due to a substantial increase in the protection of the inhabited compartment. Foreign experts consider the fact that at the present time expenditures for crew training total nearly one third of the cost of the tank itself to be the primary argument in favor of this variation. Foreign experts consider the complex demographic situation that has developed recently in all developed countries (reduction of the birth rate and the share of the male population) to be the second quite important circumstance in favor of this approach.

Less attention has recently been paid to mobility as a factor for reducing the time an armored vehicle is under fire than was the case 10-15 years ago. This is explained by the significantly increased response time and accuracy of the weapons used to combat armored vehicles. Right now experts' primary efforts are being concentrated on developing compact engines, their systems, and also transmission systems since the engine-transmission compartment occupies up to 40-50 percent of the internal space of modern tanks and armored personnel vehicles.

Foreign experts use various methods and techniques to camouflage tanks. So, for concealment in the optical detection range, vehicles are painted the color of the average terrain background or with contrasting spots of a different color which distorts the contour and impedes detection and identification of an armored vehicle

according to its characteristic traits. Furthermore, every possible type of smoke-generating system is being widely used. Kaolin filler-based paints are being used to reduce thermal contrast. Devices for mixing hot exhaust gases with ambient air and also heat dispersing screens are being stipulated in armored vehicle design.

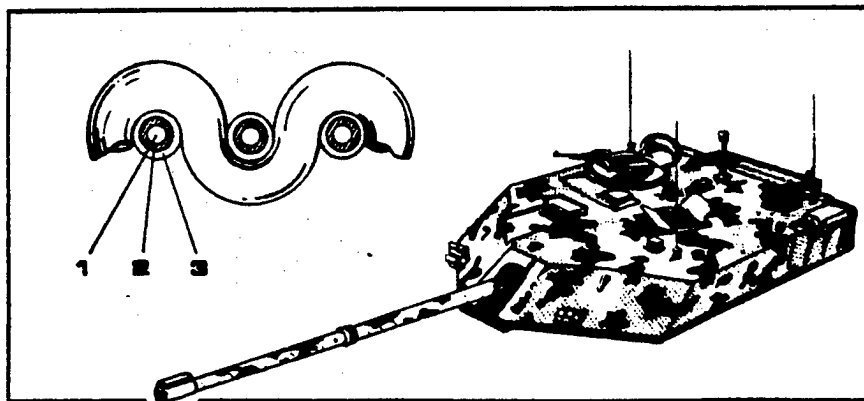
They are seeking to reduce detection in the radar range by imparting forms to the external surfaces of armored vehicles that reflect illuminating energy away from the direction of the radiating reconnaissance site and also through the use of radar absorbing materials and coverings.

Recently, systems are increasingly being used that cause disruption of normal operations of enemy reconnaissance and weapon guidance systems. Hence, some of them can be used both in certain situations as well as in others. This is in particular aerosol screens. While striving to improve camouflage capabilities, experts are searching for new formulas, for example, "metallized smokes" that distort electromagnetic radiation.

According to a number of experts, decoys can be successfully used to protect armored vehicles. In so doing, they consider insuring that a signal received from a decoy is identical to the signal received from an actual target to be an important task. Passive reflectors in the shape of corner reflectors, Luneberg lenses, or repeater arrays are used as radar decoys. High temperature reflectors with a spectrum that has shifted into the short wave area imitate thermal radiation. Furthermore, according to foreign military experts, decoys must be autonomous for the best correlation to the protected target. To do this, they propose dropping or firing them from the vehicle. In so doing, they think that the drop must occur after the guidance system has detected and locked on to the tank and the time of their existence must exceed the constant times of the tracking systems for speed and range. They propose equipping tanks, armored personnel vehicles, and other weapons and military equipment with radar, laser, and infrared radiation warning sensors to determine the moment to launch a decoy.

Foreign experts consider the use of active protection systems to be one possible technique to reduce the number of warheads that hit a tank. This idea consists of destroying or damaging projectiles (missiles, mines) that are flying toward the armored vehicle or diverting them away from the target. The practical realization of this solution is being carried out along three primary directions: Development of devices that create interference for the operator or the missile (projectile) guidance system; manufacture of decoys to divert guided or homing projectiles; and, development of active countermeasures techniques against the approaching projectile to destroy it. However, they think that development of active protection systems is problematical in the near future and furthermore their use will apply certain restrictions on techniques for conducting combat operations despite the fact that it is fundamentally technically possible to implement all of these measures.

Figure 1. Universal Camouflage Material for Military Vehicles that Insures Their Protection from Detection in the Visible, Infrared, and Radio Frequency Portions of the Spectrum:



Key:

1. Principle fiber (made from any material);
2. Conducting layer made from phenol resin with the addition of from 10 to 50 percent graphite or bituminous carbon black;
3. Exterior layer made from plastisol with the addition of from 5 to 25 percent metallic powder.

Foreign experts consider further improvements of armor design, layout diagrams, implementation of special measures, and the use of systems that reduce the effect after penetration through armor of projectiles that hit a tank as the primary ways to improve protective characteristics (or "direct" protection).

Armor protection is subject to change with difficulty even with thorough modernization. Strict restrictions on size and weight compel experts to seek ways to increase a tank's resistance to projectiles by using new armor materials and technologies for their production, and also by improving barrier designs. They think that this problem has worsened with the appearance of systems that are capable of destroying targets from directions where the weakest armor opposes them. So, they propose using precision-guided munitions with shaped-charge warheads or penetrator warheads and also anti-tank

aviation bombs to destroy targets from the upper hemisphere. They are placing cluster munitions as submunitions in the airframes of operational-tactical missiles, guided projectiles, or guided aircraft cluster munitions or mines for delivery to the target. The number of submunitions fluctuates from 3-5 to several dozen or even hundreds.

According to foreign experts, simply increasing the thickness of armored parts for protection from systems that destroy from above and from vertical penetration and horizontal effect anti-tank mines is impossible under existing restrictions and it is not permissible to lessen protection from traditional destructive systems. As a result, they think that further differentiation of the thickness of armor parts is required and that in the future obviously they will have to generally review the arrangement of sections which must be provided with this protection.

Figure 2. Combat Vehicle Equipped with Shape-Changing (Deforming) Screens.

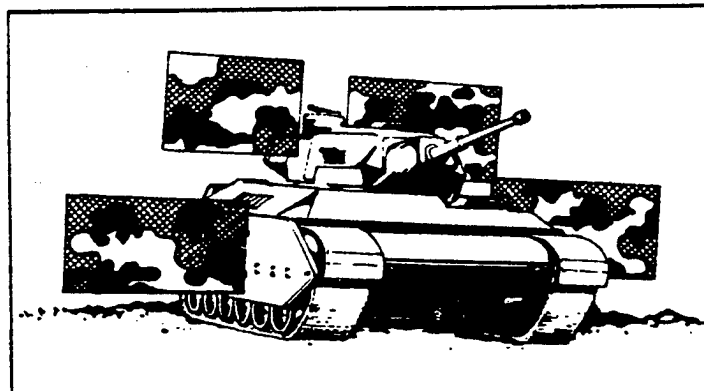
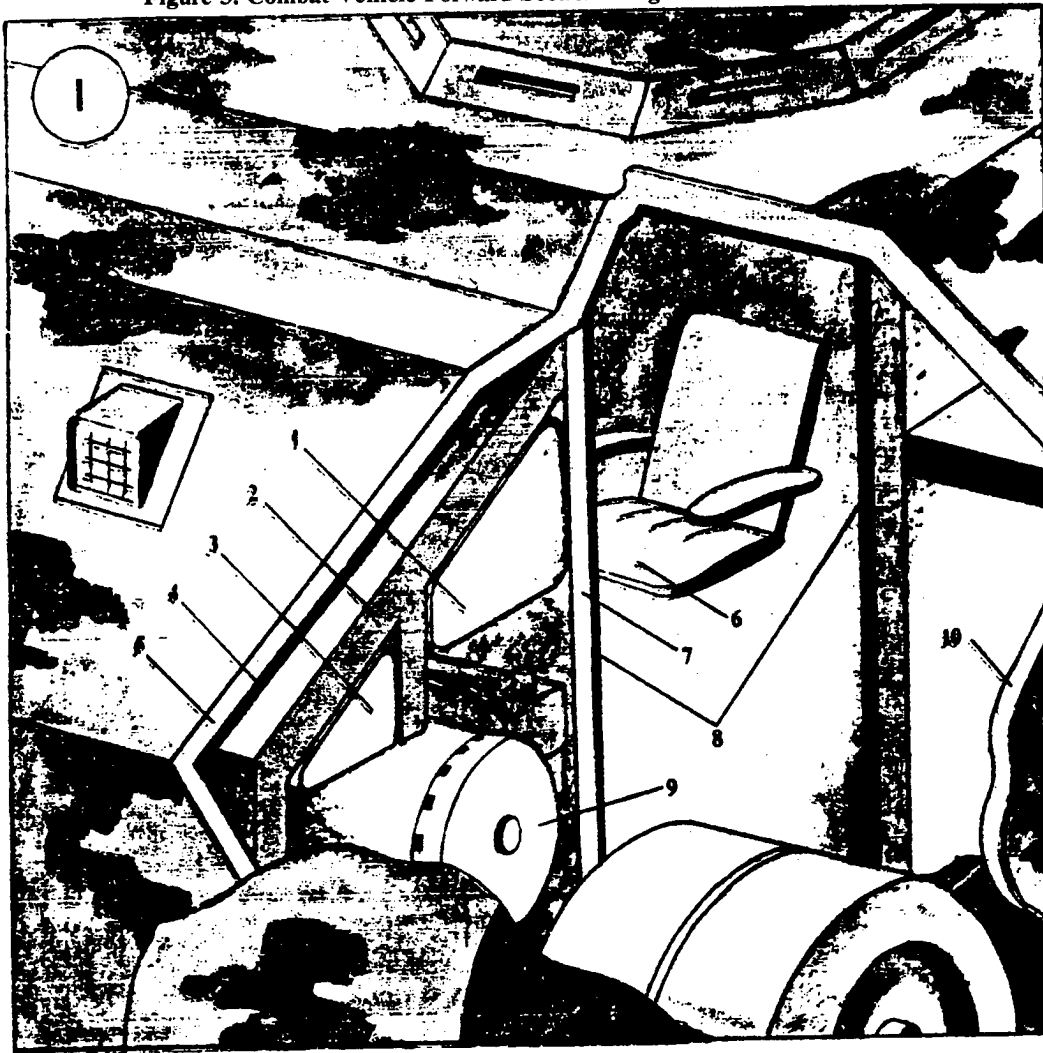


Figure 3. Combat Vehicle Forward Section Integrated Armor Protection.



Key:

- 1. Engine cooling system compartment.
- 2. Vehicle main hull.
- 3. Lubrication system compartment.
- 4. Compact armor (aluminum alloy).
- 5. Additional protection (uniform armor)
- 6. Driver-mechanic's seat.
- 7. Engine firewall
- 8. Undercovering (metallized polyethylene).
- 9. Engine block.
- 10. Side screen.

Note: Free space between the hull and the additional protection can be used as a fuel tank.

Foreign experts think that the use of combined barriers is one of the simplest techniques to increase the resistance to armor designs' projectiles. At the same time, they are striving to find the optimum ratio of armor thickness to filler and to vary their combination. Explosive charges or other active components that disrupt the process of warhead penetration into armor are among these barriers. Recently, fillers which use materials based on boron and silicon carbides and aluminum oxides are receiving broad application. They propose increasing the energy intensive nature of the steel elements of combined barriers by increasing the variation of the composition of alloy additives, by increasing the purity of materials, and by improving heat treatment.

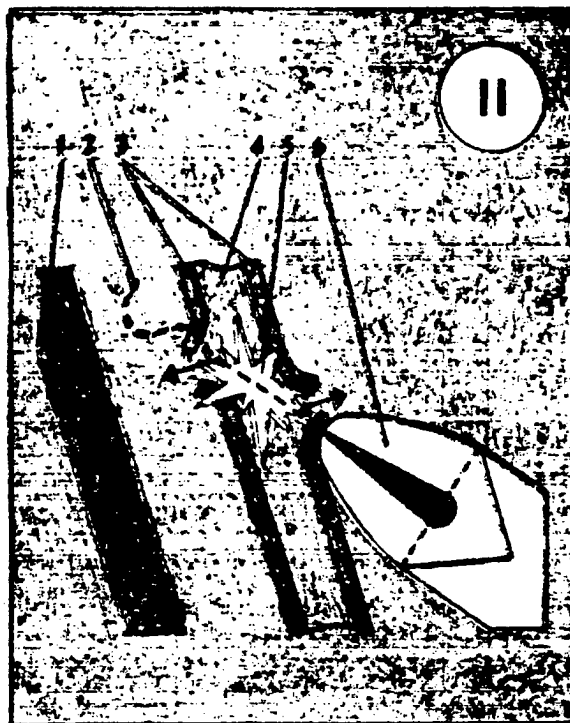
The foreign press has reported the development of a new armor, one of whose components is depleted uranium. Its density is 2.5 times greater than the density of steel which in and of itself does not provide any important advantages over steel armor. However, they think that they have managed to increase its durability by a factor of five due to special heat treatment. They think that the use of this uranium combined with steel parts in a composite and combined armor barrier can significantly increase tank protection and make it capable of withstanding not only existing shaped-charge and kinetic projectiles but also future anti-tank weapon systems of the 1990's.

Variations of using ceramic materials as armor barriers are also being developed. At the present time, foreign experts' primary efforts are being concentrated on the development of technologies to reduce their cost and weight. However, as reported in the foreign press, they have not yet succeeded in reducing the cost of ceramics to less than \$400 per kilogram and they think that the price should not exceed \$20 per kilogram for mass use.

Recently, foreign experts have been devoting a great deal of attention to aluminum as a promising material for developing armor barriers, especially for light vehicles. It has been reported that they are searching for ways to use ingots of this material in ceramic armor. In so doing, aluminum powder is being used as a catalyst. A variation of armor has been developed that is a combination of three plates from aluminum alloys with various physical and chemical characteristics. It has been reported that the probability of low caliber projectiles (up to 30 mm) penetrating this barrier has been reduced by 20-25 percent as compared to single armor plate.

Foreign experts are continuing work to increase tank protection by affecting the warhead that is penetrating the barrier. The most widespread method being used for this is the use of explosive charges that are placed on the external surface of the armor in individual canisters or that are directly included in the barrier's design. They propose that in the latter case protection will be provided not only from shaped-charge (as during the use of medium-trajectory warheads) but also from kinetic projectiles. The principle of using explosives for protection

Figure 4. Dynamic Armor Using Active Materials.



Key:

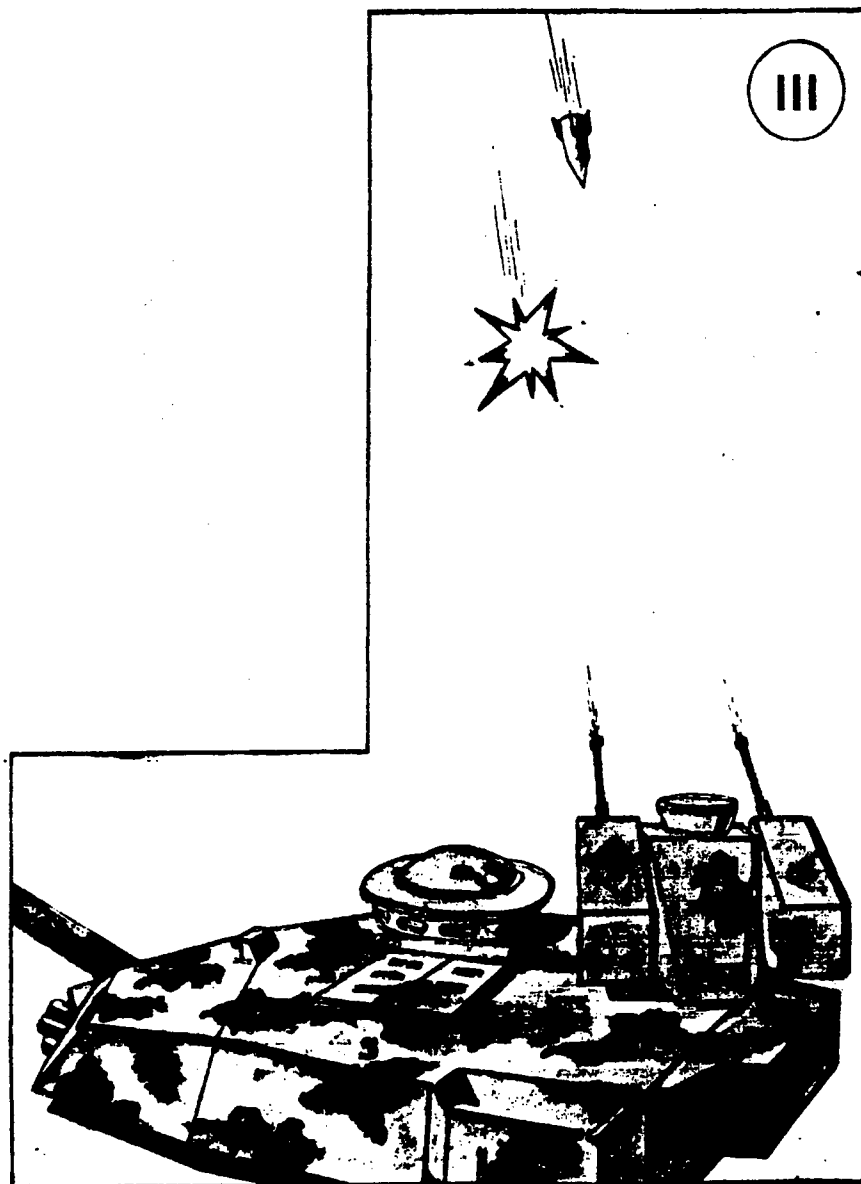
1. Combat vehicle hull.
2. Deformed shaped-charge jet.
3. Steel plates.
4. Active material.
5. Local reaction.
6. Shaped-charge projectile.

from destructive systems has received the designation "dynamic protection" or "reactive armor."

Foreign experts think that it is necessary to consider the following circumstances during its realization: First of all, the action of a flat attached explosive warhead on armor during its activation is similar to the action of an armor-piercing high-explosive projectile (approximately half of the energy is directed into the armor); second, the fact that warhead expenditure reduces the level of protection during the course of an engagement; and third, the use of attached dynamic protection on thin armor is impeded by the impact of high-explosives.

As has been reported, foreign experts are conducting an aggressive search for other countermeasure methods against warheads that hit the armored vehicle simultaneously with the development of dynamic protection. One of them insures conditions for a drastic increase of the brittleness of a warhead that has penetrated into the armor. A liquid reagent, a mercury alloy with sodium oxide or other alkaline metals, is one of the barriers that can do this. As a result of the interaction of the amalgam and the surface of the projectile or bullet, the latter

Figure 5. Active Protection System Design Variation.



instantaneously becomes brittle and is destroyed when it enters the next layer of the armor barrier.

Additional armor plating of the forward sections of the hull and turret is widely being used abroad to increase protection of tanks that are already in the inventory. This is carried out during major overhauls of armored vehicles. It has also been reported that easily-removable hanging armor systems have been developed for lightly-armored combat vehicles.

A great deal of attention has recently been paid to the issue of crew survivability and the preservation of their combat capability. They think that the highest level of crew protection may be achieved with the realization of

new tank layout diagrams. They suggest that conducting a series of measures directed at reducing the effect after penetration when cluster munitions penetrate protection can be quite effective for already existing vehicles.

In particular, they consider it necessary to enclose inhabitable compartments with an anti-fragmentation material (kevlar), to use screens, to store ammunition in protected canisters, and that crews must have flak jackets, helmets, and protective glasses for this purpose.

Protective glasses are intended to protect the eyes of crew members from the effects of light radiation from a nuclear explosion. Their optical elements consist of a transparent ceramic layer that is placed between hybrid

polarizers and practically do not permit light through until the metal elements attached to the surfaces of the ceramic layer do not conduct electricity. The optical elements become transparent under their impact. A flash of light radiation is perceived by photodiodes that control the discriminator that regulates the glasses' transparency. When it generates a signal, voltage is switched off and the ceramic layer is returned to its nontransparent state. While controlling the voltage, one can change the degree of the elements' transparency. At the moment of activation (closure), the light stream penetrates into the operator's eyes but the intensity approximately corresponds to ordinary daylight.

Foreign experts see the possibility to prevent fuel explosions by using hermetically sealed tanks with overpressure of inert gases that prevents the entry of oxygen when the tank is punctured and fuel vapor forms. Furthermore, they consider it necessary to equip tanks and other combat vehicles with fast-acting suppression systems for fires and explosions inside the vehicles. The required fast-action is provided by using optical-electronic fire detection sensors, by increasing the flow area of the pipes that carry the fire suppression compound, and by simultaneously reducing their length.

Foreign experts are devoting quite serious attention to improving protection of armored vehicles from weapons of mass destruction. This task is being resolved as a rule within the framework of a total increase of their survivability. At the same time, insuring vehicle survivability under any conditions in which the crew can survive is the primary requirement. The diversity of protection techniques is determined by the nature of the impact of the destructive factors on the crew and vehicle.

The use of antiradiation materials in the form of overcoverings and undercoverings, hermetic sealing of the armor plated area, and the use of group and individual protection systems (antiradiation vests and so forth) has begun to be universally adopted abroad.

While reviewing the prospects for developing armored vehicle protection from weapons of mass destruction, foreign experts think it is necessary to consider the possibility of the appearance in the future of new types of weapons whose foundation and impact will be principles which until this time have not had a military application. They think that they can be reduced to two large groups (just to biological or to biological and technical objects). Types of weapons that use radioactivity, particle beam, electromagnetic radiation, or infra-sound belong to the first group. Transmission of high energy pulses and anti-matter belong to the second group.

They suggest that a large part of the principles listed above can already be realized in weapons during the current decade which will still further aggravate the problems of tank protection.

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Changes in MT-LB Design

91UM0415B Moscow *TEKHNIKA I VOORUZHENIYE*
in Russian No 12, Dec 90 pp 18-19

[Article by Lieutenant-Colonel V. Chalov: "Changes in MT-LB Design"]

[Text] Considering the operational experience of the MT-LB tracked transporter prime mover, a number of changes have been made in its design that are directed at improving its performance, reducing the labor intensity of technical servicing, and increasing the reliability of parts, units, and assemblies. In particular, in order to prevent corrosion of engine cooling and heating system aluminum pipes, their surfaces have been oxidized and covered with phenol-formaldehyde lacquer. Water pump bearings are not lubricated but oil from the engine lubrication system lubricates parts of the high pressure fuel pump and engine rpm regulator.

The durability of the side universal splined shaft joints and of the side transmission sleeves has been significantly increased by using box-shaped splines with a reduction of the friction coefficient. The design of the drive wheel ring mounts has been simplified: Spring lock washers are being used instead of cotter pins. Wheel lug tightening torque totals 24-28 kgs · m.

Main transmission lubrication system reliability has been increased as a result of the fact that they have begun to fasten pipe 8.10.072-3, that connects the pump to the tank, to the main transmission casing. They have installed the bleed air valve to the air tank for the same purpose.

They fasten the starter to the engine using clamps. Therefore, it can be removed without dismantling the prime mover's engine. To do this, they disconnect the wire from the starter and remove the under-engine panel. They disconnect the gas intake pipeline and the gas outlet pipeline from the engine. They remove the bottom plate housing and remove it from the engine compartment. They drain out the coolant and dismantle pipe 8.05.294-1 and remove the starter.

Track tension is controlled by the size of the gap between the race of the track's upper band and the first support wheel. It must total from 30-55 mm. If the prime mover veers to one side when it moves, track tension needs to be reduced on that side of the vehicle or tension on the other track needs to be increased.

To do this, open the rear hatch cover and remove the adjustment screw retainer and turn the adjustment screw clockwise until track tension is normal using the special wrench (from the vehicle's spare parts kit). If you cannot increase track tension using the screw, then this can be done by removing one track link. However, you must bear in mind that you are authorized to remove no more than 10 track links during the track's entire period of operation.

When operating the MT-LB during the winter, you are permitted to add 10-15 percent diesel fuel to the transmission fluid. In so doing, the vehicle preparation period for movement is reduced and the load on the prime mover's parts is reduced.

To transport the MT-LB by rail, it can be secured to a flat car using four metal wheel lugs. In this case, the vehicle is held to a skid by fastening the tracks' lower bands to the board plating. However, you must keep in mind that while securing the MT-LB on a flat car, you stop the prime mover using the brakes. To do this, loosen the left and right brake drum band adjusting nuts and, having inverted them, tighten them toward the support as far as they will go. Then, loosen the nuts once again six turns and press the brake pedal. Put the prime mover's shift levers into second gear and secure them using latches.

Then release the brake pedal and tighten the brake adjusting nuts as far as they will go.

To release the transporter's brakes, remove the brake adjusting nuts and, having turned their teeth toward the band, screw it to the support. Put the shift levers into first gear and set a gap of 1.5-2.5 mm between the band straps.

Let us also remind you that you must not secure the MT-LB transporter-prime mover using metal shoes with brake band straps that are less than five mm thick because in that case the vehicle will not be reliably secured to the flat car.

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CINC Air Force on Housing

91UM0526A Moscow KRASNAYA ZVEZDA in Russian
3 Mar 91 First Edition p 4

[Interview with Colonel General Ye.I. Shaposhnikov, commander in chief of the Air Force, by KRASNAYA ZVEZDA correspondent Yelena Agapova; place and date not given: "So, When Will the Pilots Get Apartments?"]

[Text] Not so long ago, predictions by the Air Force leadership concerning housing overflowed with optimism: By the end of 1990 it was planned to provide apartments for all flight personnel. It appeared that there was movement in this direction. But the year 1990 is behind us. Meanwhile, the situation of pilots, as well as other Air Force personnel without apartments, has changed little.

What interfered with the fulfillment of a realistic plan? Was it the inaction of officials, sabotage by local soviets, universal shortages, or other reasons? There are many questions. Military pilots and their families keep asking these questions in their letters to the editorial office. Our correspondent approached Air Force Colonel General Ye. Shaposhnikov, commander in chief of the Air Force, for answers.

[Agapova] Yevgeniy Ivanovich, we discussed this topic with you on the pages of KRASNAYA ZVEZDA a year ago. I admit that at that time I also came to believe the optimistic prediction: It appeared realistic. Why has the waiting list of those without apartments in the Air Force virtually failed to get smaller?

[Shaposhnikov] This is a legitimate question. It appears that we are building a lot now, the volumes of housing construction increase, but tangible, obvious changes are not apparent. Why? For many years, the housing situation in the Air Force was simply hopeless. The types of aircraft changed, but the life of military pilots hardly did. Finally, last year realistic conditions for providing apartments for the pilots appeared indeed for the first time. A lot was done to this end but, unfortunately, it did not happen. There are many reasons for this. I will discuss some of them. Our unpredictable life also made corrections. For example, the prediction in question could not have taken into account the fact that the withdrawal of troops from Eastern Europe would proceed at such a rapid pace. Last year, we received 5,000 officers and warrant officers with families from the groups of forces. Most of them did not have housing in the Soviet Union. This year, we will place more than 8,000 servicemen. The situation is the same: Few of them have apartments in their native country.

[Agapova] However, families departing from the Western Group of Forces may count on apartments in houses to be built with funds allocated by the FRG...

[Shaposhnikov] Indeed, houses financed with these funds will be built in 14 Air Force garrisons, a total of more than 11,000 apartments. But even the foreign

companies which are used for construction cannot erect houses overnight, whereas the people need to be put up somewhere now. It turns out once again that someone's turn is moved back. Still, the troop withdrawal and the housing problems associated with it are not the main reason for the failure of our plans. We suffer more serious losses through the fault of local soviets which should provide housing for us. They do not meet their obligations at present. Eleven hundred apartments—this is how much the Air Force was supposed to receive from the local soviets last year. Actually, only 634 were received. There is nothing to say about the Transcaucasian and Baltic republics: Virtually nothing is allocated there. The situation in Moscow is also known. An acute shortage of construction materials, especially bricks, also dealt a blow to our plans. Houses in 12 of our garrisons failed to be commissioned for this reason. You can count how many people failed to receive apartments last year after all.

[Agapova] How many people without apartments are there in the Air Force at present?

[Shaposhnikov] More than 37,000 families of officers and warrant officers, of which 5,000 are families of flight personnel.

[Agapova] The newspapers frequently report now on military aircraft carrying humanitarian-aid cargo. Military pilots, especially in military transport aviation, earn considerable foreign-exchange funds. The following question comes up: Why can we not invest the foreign exchange earned in housing construction?

[Shaposhnikov] Indeed, our crews from military transport aviation earn certain funds in both Soviet rubles and foreign exchange by transporting cargo for the national economy. Until recently, the use of these funds was a quite controversial issue. The situation has been now clarified and we have been given an opportunity to use some of these funds for housing construction. We now have signed contracts with developers for the construction of houses, also in Moscow.

[Agapova] Not so long ago Stankevich, deputy chairman of the Moscow Soviet, stated that all resolutions concerning housing for servicemen have been adopted in a different country, and that the Moscow Soviet has no intention of making up arrears to the military.

[Shaposhnikov] An emergency situation with servicemen who do not have apartments has developed in Moscow. There are 1,053 of them in the Air Force. We need at least 1,000 apartments, whereas last year the Moscow Soviet allocated only eight apartments. There are no clear-cut prospects for an improvement in the situation this year. Meanwhile, military pilots have never refused to help Moscow. For example, since December 1990 there have been 101 flights from the countries of Western Europe to Moscow, and 3,240 tons of cargo have been delivered—foodstuffs, medicines, medical supplies.

At present, there are 534 families without apartments, of whom 25 are families of flight personnel, in the Air Force Glavkomat. These people may serve in Moscow, but they fly the most up-to-date aircraft, train pilots of line units, and have a right to priority allocation of housing. But they have been waiting for apartments for four to five years. We are vigorously looking for ways out of this difficult situation. A target-oriented program for housing construction in Moscow and the Moscow area has now been developed. It is expected to build houses with 2,000 apartments, in particular, 900 apartments this year. The minister of defense has additionally allocated 9 million rubles [R] to us for this. We have also taken other measures. Thus, effective last year, the Air Force began to invest funds in contributions to the construction of housing in Moscow together with other services of the Armed Forces. This year alone, R2 million will be spent for this. Housing conditions are now improved for those who serve in the capital only in exceptional cases. The number of officers assigned to serve in Moscow has been reduced considerably.

[Agapova] How many people without apartments have been assigned to the Air Force Glavkomat this year nonetheless?

[Shaposhnikov] By an order of the Air Force commander in chief, officers who do not have housing in Moscow have not been assigned, and in the foreseeable future will not be assigned.

[Agapova] Yevgeniy Ivanovich, I would not like our predictions to be wrong again. But, when will pilots get apartments, after all?

[Shaposhnikov] We have now earmarked 80 percent of the funds allocated to the Air Force for capital construction for housing construction. This has never happened before. The mechanism of contracting for housing construction in our garrisons has itself changed radically effective this year. Previously, district Housing Maintenance Administrations, which we had no control over, acted as the procurement office for the Air Force. This year, a special Main Engineering Administration has been set up in the Air Force. This will undoubtedly speed up the resolution of aviators' housing problems. Recently, the "Care" program, which I think is specific, has been developed in the Air Force. Its objective is to resolve an entire set of social issues in the life of aviators and their families, including the housing issue. It is scheduled to take several years. We plan to commission 12,000 apartments this year. At present, the main point is to prevent all irregularities in the distribution of housing. This is why from now on I will personally confirm all apartment assignment lists compiled by housing commissions.

Now about the issue of forecasts. This is how I will put it: It is hard to come up with them, especially at present, when the situation is so critical. Still, I think that housing tensions in the Air Force must subside in the next two or three years.

Chief Engineer Complains Aviation-Engineer Service Neglected

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[Article by Major-General of Aviation V. Ishutko, Chief Engineer of PVO Aviation: "Aviation-Engineer Service and Flight Safety." Under the rubric, "Military Reform: A Point of View."]

[Text] These days the Aviation-Engineer Service (IAS) is playing second fiddle, even though it has a most important role in maintaining a high state of combat readiness of aviation units and subunits, and in assuring flight safety. What is the reason for this situation? There are many, but probably the main one is that since time immemorial the attitudes of chiefs of all ranks toward the Aviation-Engineer Service has been the same as it is toward ordinary service, i.e., as some sort of second-rate support that does not have any fundamental influence on questions of combat readiness. This is evidenced even by the fact that only four or five maintenance engineers were invited to last year's meeting on flight safety held at the USSR Ministry of Defense. And not a single one of them was afforded the opportunity to speak. I should note that several hundred people were in attendance there.

At the same time, hardly a single aviation problem is resolved without the participation of the Aviation-Engineer Service. IAS experts comprise 70-80% of personnel in aviation units. In addition to their regular responsibilities, they are often given numerous jobs and tasks that have nothing to do with their positions.

For example, supplying flying units with aircraft engines, spare parts, and expendable materials should be done by rear service units, but in reality, "obtaining," delivering, and distributing them has to be done by the Aviation-Engineer Service. What is interesting is that many commanders consider this a completely normal procedure. In thirty-two years of service in aviation, only once did I hear a commander of a formation ask the rear service why spare parts had not been delivered.

It is possible that my conclusion will appear to be too pointed, but the Aviation-Engineer Service today has fallen to such a low level that our specialists simply are not physically capable of fulfilling all the requirements listed in current documents on maintaining and servicing aircraft and equipment. This is why today we often run into self-deceiving situations and cases of pulling the wool over someone's eyes.

Every engineer knows that some of the requirements regulating service and maintenance of aviation equipment is absurd and unnecessary, and some are even harmful. They have no right, however, to change something on their own. As a result, aviation specialists go ahead and correct the pertinent documents, but this of

course does not necessarily result in high quality testing and regulating of all vital aircraft components and systems.

I believe that the Aviation-Engineer Service is now undergoing a disfiguring cutback. Notwithstanding the fact that the IAS table of organization can be changed only with the permission of the Main Engineer of the Air Force, in units of the PVO this is done by the resolute stroke of a pen by people in positions of authority and without any coordination. Last year around 2,000 aviation specialists were cut in exactly this way.

The number of officer engineers and technical experts who submit requests to leave the Armed Forces increases with each year.

We are already experiencing a shortage of cadres in the IAS. Further cuts will negatively affect the quality of servicing aviation equipment and, consequently, may lead and contribute to flying accidents. At present, for one fighter aircraft we have 2-2.5 times fewer technical specialists than they have in the USA for an identical type fighter. Perhaps our aircraft are more technologically perfect? Unfortunately, not.

I am not calling for equality in everything with the USA and other Western countries. We have to find our own ways in solving problems. And problems is what we have.

With the goal of raising the quality of servicing aircraft and equipment, PVO aviation has proposed, as an experimental test, a system of readying aircraft for flights using crew members who are technicians.

Essentially, the system is, as follows: Technical aircrews and two technical crews will be organized from among technicians in an air squadron. One technical crew will examine the technical condition of an aircraft and the other will tend to the repair of aviation equipment to make certain that it is combat-ready.

Generally, the technical aircrew will be responsible for flight readiness. They will do the pre-flight preparations for the aircraft assigned to them, preparations for a turnaround sortie, and they will release the aircraft as flight-ready. The technical aircrew is headed by an operator-engineer. Any IAS officer, regardless of specialty, may be assigned to this duty after having gone through some preliminary training. At its beginning stage (the experimental stage, plus two to three straight years), it would be logical to implement this training in military units or training centers and, in the future, in higher educational institutions (VUZes).

Taking into consideration the workload and degree of responsibility of an engineer-operator, his authorized rank should be at least "captain," with, of course, commensurate pay.

After a certain number of flights, but not less than once a month, each aircraft should undergo an inspection of

its technical condition. The technical crews should have the responsibility for this action.

On the basis of experience in service and maintenance of a specific aircraft or helicopter type, corrective action is being considered for changing the scope of pre-flight preparations and eliminating preliminary and other preparations now required by regulations to be done on a calendar basis. Instead, aircraft and equipment will be maintained on the basis of their technical condition.

I have no doubt but that the proposed system is a step in the right direction. It is necessary to keep in view, however, that when there are not enough technicians, no system will function reliably. And as I already indicated above, they are being cut thoughtlessly.

An important factor in assuring the reliability of aviation technology consists of raising the quality of inspecting aircraft incidents and working out preventive measures. Maintenance engineers are often not capable of performing this delicate task. From a professional standpoint, one of the Scientific Research Institutes (NII) of the Air Force performs this task. But since this one-of-a-kind institute has itself been subjected to cuts more than once, it usually does not have enough specialists to take care of aircraft and helicopter accidents from PVO units.

I would like to touch upon the question of evaluating the work of the directing staff of the Aviation-Engineer Service. It can hardly be considered normal that commanders who, as a rule, have never been assigned to engineering duties, or commanders of strategic and combined formations of PVO Forces, often not rated officers, certify and regularly assign military aviation technical personnel to high positions. It is no secret that some of them evaluate an engineer not on the basis of his professional qualifications, but on whether he can localize organizational blunders. Sometimes, they are evaluated solely on personal grounds. This is why some of the engineers have a superficial knowledge of maintenance, have little influence on its reliability, and cannot teach their subordinates anything.

With regard to flying personnel, when the changeover to the proposed system occurs, I strongly support separating them from the overall aviation collective organizational structure and relieving them of having to make decisions on various problems which are not directly connected with flying duties. Pilots should be given the opportunity to work only on flights, tactics, strategy, problems of coordination with other service combat arms, and so on. People in this heroic profession have earned the right to have high military ranks and commensurate pay, based not on the number of subordinates they have, but on the importance of the problems they have to deal with and the daily risks they face.

The elimination of many of the shortcomings and errors present in today's organizational structure of Air Force aviation units and formations, as well as in the aviation components of other service branches, can be foreseen in

the creation of a unified Aviation-Engineer Service of the Armed Forces of the USSR. This new organization could be named the Aviation-Engineer Troops. These troops should include the relevant rear services and armament services. Their organization could be structured, as follows: Instead of an IAS squadron, a squadron or battalion of Aviation-Engineer Troops (IAV); in an aviation regiment, a regiment or base of IAV; in large formations, an IAV directorate; and on the level of the Armed Forces of the USSR, the command headquarters of Aviation-Engineer Troops.

Subordinate to the aviation-engineer troops should be the scientific research institutes that deal with aviation matters, aviation repair plants, and educational institutes that train aviation and rear service specialists.

It will not be necessary to increase the number of personnel in order to establish this organization, and in some cases there would even be a decrease by eliminating work duplicated by engineers and rear service personnel, as well as engineers of the Air Force, long-range aviation, air transport, Army, PVO aviation, Navy, and so on.

The commanding element of the Aviation Engineer Troops, through its different component organizations, will assure the technological excellence and regulatory maintenance of aviation equipment and ground support units.

The proposed organization does not pretend to be the final answer. It can be worked on further and improved.

People may object to my proposal, saying that next they will be creating aviation-technical bases and, in the future, aviation-engineer services will be incorporated into them. Why should we reinvent the wheel? I am convinced that if the IAS is absorbed by the rear services, instead of the other way around, nothing good will come of it. The fact of the matter is that engineers are vitally interested in the rear services doing a good job, and for rear service personnel the aviation-engineer service is something that disturbs the peace.

One has to have great hopes that the military reform will not bypass aviation and, primarily, the aviation-engineer service. After all, flight safety and combat readiness depend on the role that will be given to the IAS.

History, Problems in Development of Over-the-Horizon Radars

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[Article by KOMMUNIST VOORUZHENNYKH SIL
Special Correspondent Major A. Babakin under the
rubric: "Military Reform: Problems and Opinions":
"Fortresses Alone Are Ineffective or Why the Over-
the-Horizon Radar System Was Shut Down"]

[Text] The rooms of the enormous structure were filled with every possible type of equipment. But its condition turned out to be terrible. Many units were lying on the floor amongst the dust and all sorts of boxes, instruments, and devices were piled up in disorder in the corners and along the walls. Some pieces of equipment were broken and scraps of wire and pieces of parts were protruding from them. Military lawyers discovered this devastation in such an important defense facility as an over-the-horizon surveillance radar site....

"Do Not Accept into the Inventory...."

In the beginning of the 1960's, the Americans installed powerful radars in Alaska, England, and Greenland. Using these radars, they had radar coverage half of our territory. The U.S. Strategic Air Command also deployed up to 1,000 Minuteman intercontinental ballistic missiles on nine missile bases. In so doing, they were pursuing the goal—of destroying Soviet ballistic missiles first and thereby weakening the presumed retaliatory strike. During the Cold War, the threat of this surprise attack hung over our country like the Sword of Damocles. There was practically no adequately effective anti-missile defense system. Therefore, the need also arose to develop a warning system which would be capable of detecting a surprise nuclear missile attack from the territory of the United States at any time and with a high degree of accuracy. Quite a few designs were submitted. All of them were reviewed at the directorate which Lieutenant General M. Nenashev headed until recently. At that time, the choice was made in favor of the brainchild of Chief Designer F. Kuzminskiy who shortly thereafter also became the director of NII [Scientific Research Institute]. In accordance with his design, an over-the-horizon radar system consisting of two powerful radars was developed. They were to detect missile launches from American military bases up to 6,000-10,000 kilometers away. The State Commission reviewed and approved the design in the spring of 1971. It recommended initiation of its implementation.

The first radar site was constructed in 1975. Shop tests were begun and were conducted for several years. Construction of a radar near Komsomolsk-na-Amur proceeded concurrently with the testing. However, during the course of a performance evaluation of the radar site near Chernobyl, it was discovered that certain tactical-technical specifications were significantly lower than designed. They substantially impacted the probability of detecting launches of single missiles and small groups of missiles. Modifications were begun. Test requirements were made more stringent. And the second radar site had already been built by that time. It also began to conduct experimental surveillance of a test range from which the Americans periodically launched missiles toward an island in the Pacific Ocean. Over-the-horizon radar testing continued for three entire years but they did not manage to attain the desired results. It turned out that the electromagnetic signal was being attenuated while passing through the Polar Ionosphere.... Of ten single

ballistic missiles launches, the radar could only guarantee detection of some. It was quite effective only when detecting multiple missile launches. After this, several joint sessions of the State Commission for Weapons Acceptance and the State Commission for Military-Industrial Issues were held....

Polarized points of view were expressed with regard to the radars. So Chief Designer F. Kuzminskiy argued that the system could completely handle its mission in its present state since it could quite effectively detect a massive missile launch. Colonel General Yu. Votintsev and other comrades opposed these arguments. The most important issue was resolved—acceptance into the inventory of a system that would become the country's "electronic eyes" in the near future. Therefore, they asserted that they should not arrive at hasty conclusions and that they should give the chief designer the opportunity to painstakingly modify his brainchild.

As a result, an extensive special program was elaborated. During the course of it, they proposed conducting modifications of the transmitter and other systems on the radar located near Chernobyl but only later install all innovations on the other radar which was placed into experimental operation on combat alert duty at the beginning of the 1980's based on the appropriate CPSU Central Committee and USSR Council of Ministers document.

The Chief Designer's Tragedy

This was a very tense period for Kuzminskiy and his associates. They persistently attempted to investigate the secrets of the Polar Ionosphere. Why was division and attenuation of the electromagnetic pulse occurring there? How do they overcome its treacherous property—to literally devour energy? But during this period, Candidate of Technical Science V. Markov left the post of Deputy Minister of the Radio Industry. In Retired Lieutenant General M. Nenashev's words, Vladimir Ivanovich frequently impeded the activities of individual designers through his decisions. This had a negative impact on the progress of important work and engendered conflicts. And ultimately the Minister of the Radio Industry proposed that Markov leave his post and return to his previous position. So he became NII director instead of F. Kuzminskiy. This transfer totally suited Frants Aleksandrovich. They had known each other for many years. The chief designer hoped that, having been relieved of his director's burdens, he would be able to concentrate all of his efforts on the solution of complex scientific problems and modify the radar.

These hopes were not destined to be realized. As they soon discovered, the interests of the chief designer and those of the new director of the institute turned out to be different. Markov thought that it was not worthwhile to become involved with in-depth research work on the experimental radar and the two military radars and it would be sufficient just to slightly straighten out the

entire project, then transfer the weapons to the military and consider their mission to be accomplished.

The NII director's decisions began to complicate the smooth operations of Kuzminskiy's collective. Required experts were transferred to other jobs and materials were not released in a timely manner.... The chief designer became outraged, attempted to influence the leader, and visited various higher echelons. But he faced an impenetrable fortress. Moreover, having reviewed the chief designer's complaint, the scientific research institute Party committee... severely reprimanded him "for lack of personal discipline which was expressed in systematically failing to carry out the director's orders." It is difficult to challenge this decision right now. A lot of time has passed since then. Only even now Kuzminskiy continues to think that the Party committee knuckled under to Markov. It is entirely possible that they wanted to "drive" the chief designer into a corner and then he would stop fighting the director and "raise the white flag."

After the Party penalty, Kuzminskiy understood that he could not expect support from anywhere. Therefore, Frants Aleksandrovich, who had practically already been deprived of the opportunity to work normally, decided to leave NII. But with the calculation that he would have the opportunity to work on the previous problem at his new job. The director of one of the science institutes gave him that opportunity.

"It is too bad that Kuzminskiy left the post of chief designer," noted Retired Colonel General Yu. Votintsev, former chairman of the State Commission for ZGRSL [over-the-horizon radars] Acceptance into the Inventory, "if they had given him the opportunity to modify his brainchild, he certainly would have done this in a timely manner."

Once Yuriy Vsevolodovich was a witness to this conversation. At that time PVO [Air Defense] Forces Commander-in-Chief Marshal of Aviation A. Koldunov asked chief designer Yu. Burlakov what he thought about this radar. The highly respected scientist, whose opinion was highly valued, stated that they probably would not manage to develop a system to detect single launches. But it did provide the most objective information on massive launches. Many officers who operated these sites or who were assigned to the PVO's Main Weapons Directorate shared that opinion. Does it turn out that Kuzminskiy was correct when he defended his proposal?

It is paradoxical but when Kuzminskiy began to work under normal conditions, in just eight months he managed to analytically assess the most complex theoretical problem of the impact of the Polar Ionosphere's magnetic pulses on the radar sites' technical specifications and understood what needed to be changed in the over-the-horizon radar apparatus. Success inspired the disgraced scientist and he appealed to the Ministry of the Radio Industry and to the Commission on Military-Industrial Issues. He argued that his new proposals were

advisable and said that they would help to accelerate work on system development and that current work on the sites was hopeless and would result in an impasse. But they were already no longer listening to the opinion of the former chief designer. Therefore, he attempted to find support in the Ministry of Defense. In due time, Marshal of the Soviet Union D. Ustinov became interested in his proposals. An inter-departmental commission was formed. Only its conclusions provided little consolation to Kuzminskiy. In his words, "the powers that be" remained indifferent to modifications for the weapons system. Therefore, his innovative ideas were also rejected. It is entirely possible that the commission simply approached the scientist's proposals subjectively.

Only this time Kuzminskiy did not think about retreating and continued his research. With one of his closest confederates, he conducted experimental modeling of the functioning of radars under various conditions and performed in-depth research of the passage of an electromagnetic pulse through the Polar Ionosphere. The results turned out to be quite significant. Armed with them, Kuzminskiy attempted to once again interest the leaders of the VPK [All-Union Industrial Office]. He sent a letter to the then chairman. But he was made to understand that his efforts were in vain.

We need to give the scientist's courage its due because, even after this, he did not lose heart and continued to work, two more years of intense work. He conducted an enormous number of experiments which were quite successful. As a result, he arrived at an understanding of many physical processes that are associated with the functioning of the over-the-horizon combat radar system. Now he could direct the radars' modifications in the proper direction.

Kuzminskiy's next letter was sent to the chairman of the USSR Supreme Soviet State Commission on Military-Industrial Issues, to the Minister of the Radio Industry, and to the commander-in-chief of PVO Forces: "I indicated that, although I had left NII, I had continued working on the subject of over-the-horizon radar. I described what steps were required to modify the weapon." However, this time the scientist's appeal did not even receive a reply.

For the sake of justice, we need to point out that Vladimir Ivanovich Markov even expanded the work front to modify the radar after Kuzminskiy's departure. He rendered every possible assistance to the new chief designer. Improvement of the radar apparatus was conducted on an equal footing with fulfillment of the previous program and was also directed at the detection of aircraft and naval targets. Kuzminskiy also precisely opposed similar suggestions by Markov. He thought that this was a dead end solution which would interfere with fulfilling the primary task—painstaking modification of the radar to detect ballistic missile launches. Just think how much precious time was wasted during the period of confrontation between Kuzminskiy and Markov.

An accident occurred at the Chernobyl AES [Nuclear Power Plant]. Because of this, research work was terminated on the radar located near the accident area. But one more facility remained near Komsomolsk-na-Amur. Another 300,000 rubles were required for its modification, as Yu. Votintsev and V. Markov pointed out. But as a result of the changed international situation, the new leadership at the Ministry of Defense and at PVO headquarters had already lost interest in the over-the-horizon radar system by this time and did not allocate the money. And in November 1989, that radar was also removed from combat alert duty and withdrawn from the missile attack warning system due to the impossibility of attaining the required specifications for it. And the apparatus at one of that site's facilities was transformed into a heap of scrap metal.

M. Nenashev thinks that the chief designer's tragedy is not only in the disagreements with the institute's director. Kuzminskiy was progressing toward the development of a combat model without having test data on the passage of electromagnetic energy through certain areas. He simply did not assume this "predatory behavior of the Polar Ionosphere." When the combat radars' specifications turned out to be lower than design specifications, he was indecisive. It is entirely probable that the chief designer simply did not want to risk any more, having decided to thoroughly investigate these complex phenomena.

While discussing the tragic fate of the over-the-horizon radars, we must yet dwell on the role of certain departments which are responsible for technical policy in the weapons sphere.

On Monopolism and Parasitic Structures....

For decades, our people were firmly convinced that the army was receiving only first class weapons which were developed as a result of the cordial and coordinated work of designers, scientific institutions, and departments. But we only had to half-open the thick curtain of secrecy surrounding the activities of the military-industrial complex and it turned out that not everything was well there. There are frequent cases when enormous resources are being spent on arms of dubious quality. For example, in NEDELYA No. 43, 1990, a conversation was published with Major General L. Zaika, first deputy of the main military procuracy. It specifically states that: "... during an inspection of the Armed Forces Communications Directorate chief by the Main Military Procurator, it was established that R16.8 million worth of communications equipment was accepted into the inventory and paid for with the knowledge of some commanders but its quality was not confirmed by test results and its equipment shortages totaled another R20.6 million." Well, for example, the over-the-horizon radar in general cost our people hundreds of millions of rubles but it was also not accepted into the inventory. Furthermore, in the words of USSR Gokhran [State Repository for Precious Metals] representatives, one of its facilities was simply looted.

Retired Lieutenant General M. Nenashev thinks we have quite a few levels of authority in our country which frequently create unjustified difficulties for designers and weapons customers from the Ministry of Defense. For example, there have been cases when some institutes have gone around the customer and literally pushed their proposals through the VPK. Quite a few designers work there and naturally they render all kinds of support to their colleagues. Mikhail Ivanovich and other comrades have frequently attempted to prove the absurdity of certain projects but the answer that followed was: They were discussed with authoritative scientists and they could not have permitted an error.

In this case, the history of the placement of a powerful modern radar site near Krasnoyarsk is extremely noteworthy. Some experts from the Ministry of the Radio Industry and the General Staff advocated precisely this region. Then former PVO Forces Commander-in-Chief Marshal of Aviation A. Koldunov, Colonel General Yu. Votintsev, and Lieutenant General M. Nenashev opposed this decision at a USSR Council of Ministers State Commission for Military-Industrial Issues session. They argued that this would violate the corresponding treaty with the United States which stipulates that states are obligated to deploy this type of radar along the borders of their national territory. Therefore, we need to build this radar site in the Norilsk area at the very least. But these arguments were not taken into account. The idea prevailed that it was simpler and cheaper to build the radar site near Krasnoyarsk. And the radar was built. Naturally, the Americans quickly determined that the Soviet side had violated the treaty and demanded closure of the site. The erroneous authoritative decision in the selection of the deployment site of the important state defense facility resulted in the fact that nearly a billion rubles were essentially wasted.

Mikhail Ivanovich said that "For example, all orders, weapons development, and money for these purposes must be concentrated in the hands of the General Staff alone."

We think that we must agree with that. Weapons are developed under a definite strategy and for appropriate purposes. The money should be placed at the disposal of no one other than the customer from the Ministry of Defense and not to various departments and production associations as is the current practice. That is why we say that the one who pays calls the tune. But one more problem arises here which acquires a special keenness and significance under conditions of market relations.

We think that monopolism also manifested itself negatively to a significant degree in the history of the over-the-horizon radar. Could Former Chief Designer F. Kuzminskiy really contend with the Ministry of Radio Industry and with the powerful NII? They simply brushed aside the disgraced scientist.

How do we avoid this in the future? Right now, it is obvious from the cases cited above that our defense complex is producing regrettable defects in its work. They produce colossal losses for the country and for the Ministry of Defense.

Of course, the situation in the world is changing for the better. But does this signify that our state does not need an army and a navy? At the present time, the Warsaw Treaty Organization has practically ceased to exist due to political changes in the countries of Eastern Europe, the USSR has been deprived of its former allies and the NATO bloc is maintaining its own position. It is obvious that under these conditions the Soviet Union is in dire need of powerful Armed Forces. Therefore, right now under conditions of military reform and the reduction of defense appropriations, we need to have a very careful attitude toward the activities of scientists and the military-industrial complex and restructure their work in such a way that we justify each of the people's rubles that is spent for weapons. In this case, we certainly do not need to have any scientist, like Kuzminskiy, attack departmental "fortresses" alone.

And one more thing. The history of over-the-horizon radars demonstrated that the scientific ambitions of scientists who adhere to various approaches and principles in the development of weapons, of various types of confrontation and backheel, human antipathies—all of this in the end result has an extremely negative impact on the dynamics of the development of the modern weapons the army needs and on the country's defense capability. Can we really permit the waste of scientists' talents and minds on fighting rather than expending their efforts on something that the state desperately needs? We think that the state is obligated to insure the protection of the scientific search in the defense sphere.

Military procurator organs are conducting an investigation on the cases of enormous losses at the over-the-horizon radar facility near Komsomolsk-na-Amur. The editorial staff retains the right to return to the problem raised in this article. We will inform our readers on the results of the inspection in a future issue of the magazine.

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Komsomolets Sinking: Retraction of Criticism of Factory Ship

91UM0372A Moscow KOMSOMOLSKAYA PRAVDA in Russian 14 Feb 91 p 4

[Unattributed article: "There Was No Hagglng"]

[Text] The above was the headline on January 17, 1991 when KOMSOMOLSKAYA PRAVDA published a news report by V. Kuznetsov, the legal counsel for our editorial office, about the conclusion of the investigation concerning the reasons for the loss of the nuclear submarine, Komsomolets. The report also stated that the factory ship, A. Khlobystov, of the floating fish processing base [BPRO] Sevryba, took all necessary measures to assist the naval seamen in distress, and that it was not responsible for the loss of servicemen's lives.

The leadership of the Sevryba BPRO, however, considered this report insufficient and asked the Sverdlovsk District People's Court of Moscow for an official decision. The people's court agreed to this request and asked our editorial office to "publish a retraction to the effect that the information in an article by V. Yunisov, 'Eight Months Later' (December 17, 1989), did not correspond to the facts. This article had stated that the BPRO, Sevryba, and the factory ship, Aleksey Khlobystov, had undertaken incorrect actions in conducting life-saving operations and that there was evidence of hagglng over payment for the life-saving operation."

This editorial office apologizes to all persons who had to wait for such a long time for information regarding the results of the investigation.

Submarine Fire Safety Problems Examined

91UM0372B Moscow KRASNAYA ZVEZDA
in Russian 15 Feb 91 First Edition p 2

[Article by Rear Admiral of the Reserve, Professor G. Kostev and Captain First Rank I. Kostev, Deputy Commander of a Submarine Unit: "The Fleet Today and Tomorrow: Why Do Compartments Burn?"]

[Text] From the history of our submarine fleet it is known that prior to 1941 not a single time was fire the primary cause of tragedy at sea, causing the loss of a ship. Even during the war, losses of our submarines were caused primarily by combat damage, but never by sudden fires aboard a ship. Only in 1956, in the Baltic, occurred what is commonly called the first bell...

Let us remind the reader: The first Soviet nuclear submarine, Lenin Komsomol, was just being built. Parallel to that was the testing of diesel submarines with engines capable of completing long, quick speed voyages under water. They included the newly designed "M" ("tiny") type submarine. In order for the diesel to work under water, the submarine employed liquid oxygen, a large supply of which was on board in a special tank. The second in the "tiny" series of submarines, commanded by Captain Third Rank Yu. Vavakin, went out for sea trials to test the new power equipment. A sudden fire occurred in the engine compartment. The submarine came to the surface. What could be the consequences of a fire, considering the presence of a large amount of liquid oxygen aboard the ship and the newness of the engine? Submariners thought that the most probable would be an explosion. More than anything else, this can be the explanation for a certain passivity of the crew in their fight to save the submarine: Their main efforts were concentrated on saving the personnel. Nonetheless, they did not manage to prevent a fatal ending.

Thus, the beginning of an active implementation of the achievements of scientific-technical progress in postwar submarine construction was marked by the first tragedy. Fourteen years later, in April 1970, it was now a nuclear submarine that suffered a fire. The nuclear submarine Komsomolets, which sank in the Norwegian Sea in April 1989 after a fire, was the last nuclear ship in this fiery chain. One cannot help but wonder if these were not sacrifices on the "altar" of scientific-technical progress.

It has been known for a long time that the revolution in military affairs (as is, incidentally, the case with everything else) involves many difficult and conflicting aspects. Sometimes this scientific-technical progress, in its forward motion, oversteps that line beyond which a new technological quality also carries with it unknown dangers. During the postwar period, marked by rapid development of submarine construction, many thought that the new ships have perfect systems for assuring

exactness and safety in sailing. In many respects, of course, that is true. But in a time when ships became more and more complex in their equipment, oversaturated with power-using systems and components vulnerable to fires and explosions, the sea remained as it always has been: An especially dangerous medium for any man-made structure. In a limited area, the close proximity of many electrical networks, aggressive media (alkalines and acids), easily inflammable and explosive substances, and deficiencies in design, production, and equipment assembly have all been causes for a whole series of accidents on warships and merchant vessels of many countries.

Thanks to glasnost the public now has access to facts about major accidents due to fire in our navy also, and about loss of lives. The desires of professionals and "independent experts" is understandable: They want to find out about a fire's origin. But in a number of mass media publications, instead of balanced and competent evaluations, a strong "tilt" can be seen toward finding fault and reproaching only military seamen. We remember that many years ago Admiral of the Fleet of the Soviet Union, S.G. Gorshkov, former commander-in-chief of the Soviet Navy, circulated an in-service memorandum to the effect that there is no such thing as a justifiable or unavoidable accident; that accidents and their causes are created by people due to their irresponsibility and ignorance. The commander-in-chief and his many subordinates understood full well that in practice accidents which occur through no fault of service personnel (so-called engineering accidents) cannot be excluded altogether, but there was a strict "taboo" against talking about science and the shipbuilding industry not always being at their best.

Today the "conspiracy of silence" has been broken, and the public has found out that between 1986 - 1990 alone, the Navy spent large resources on modifying technical equipment in order to upgrade the quality of operating characteristics. There is no doubt that even if engineering accidents can be prevented, the professional mastery of the crew cannot be disregarded. But first and foremost, an accident-free environment, as far as we are concerned, is based on a ship's construction and on its technology.

And here is why we have to be on the alert: On some submarines of successive generations, the compartment seals are worse than in their predecessors. The construction of a compartment should fully prevent a fire from spreading to catastrophic proportions and should guarantee that the hermetic seals remain even if the compartment is totally burned out. After all, this is the idea behind dividing a submarine into compartments: To cut off a fire from vital space. And in our memory, this principle worked many times prior to the super-complex designs. If it were not possible to extinguish the source of the fire, the submariners would secure the compartment from the outside and the matter would end without a catastrophe. We see an ideal principle: In case of a

compartment fire, the submarine surfaces and the compartment is flooded. This is another reason why we think changes in the construction of lasting and stable compartments in modern submarines should now be the number one priority for designers and builders. This priority task should be directed toward preserving a hermetic seal on two levels: compartment and hull.

Experience of the past is witness to another factor: The space within compartments should be, insofar as possible, maximally unencumbered. Today, of course, the compartments are saturated with equipment, the arrangement of which often prevents access to sources of fires and to water. As before, flammable and heat-conducting materials are widely used in the construction of submarines. Military seamen have protested against this practice for a long time, but unfortunately, in vain. They are fully justified in pointing out that in the past decade the navies of the USA and Great Britain have developed various coverings and insulated materials, non-flammable paints, and anti-smoke devices for protection of steel constructions.

Nevertheless we consider it impossible to remain silent about questions regarding the training of submariners to fight for survivability, both the chiefs and their subordinates.

The situation with the personnel of our fleet educational-training stations (UTS) is well known. They are capable of providing only the basic skills for fighting fires and properly using water. In addition, as a rule, they do it on submarines of old design. The backwardness of the UTS and the rest of the training sections, and their departure from using as their "prototypes"—the ships of the fleet—is similar to putting weights on the legs of a drowning man.

In order for seamen's training to be adequate for sea and ocean voyages, a modern training program is needed. Computers are needed by the UTS, as are the latest training aids. Finally, it is necessary to establish subunits for service and security (about which there is nothing but talk so far) in naval units, so that submariners can be freed for their most important duty: Special, naval training and training in the fight for survivability.

Of course, we are aware of the fact that many "naval centers" have a problem due to lack of resources. But we must find a way. For example, in beginning the construction of a specific series of submarines, we could also begin to establish a training center in the naval unit, where students could develop special operational skills and skills in fighting for survivability. In combating accidents, all elements must be reliable, including the technology for designing ships and the technology for commanding them.

Arkhipov on Reform, Military Economy
9IUM0364A Moscow EKONOMIKA I ZHIZN
in Russian No 5, Jan 91 pp 2-3

[Interview with Army General Vladimir Arkhipov, deputy USSR minister of defense and chief of the Armed Forces Rear Services, by EKONOMIKA I ZHIZN correspondent Boris Rachkov; place and date not given: "Army's Economy To Be Tested By Reform"]

[Text] The concept for the entry of the USSR Armed Forces into the market economy that is being worked out now includes a change in the general system of allocations and use of finances earmarked for defense needs. Enterprises, offices, scientific research organizations, military education institutes, large strategic formations, combined units, and units of the Ministry of Defense will have more rights to carry out commercial activities that do not harm the country's defense potential. Also on the drafting table is a substantial increase in the efficiency of the unit administrative and support services and agricultural production through the use of state-of-the art technologies. In addition to creating new economic subunits, higher education institutes of the Ministry of Defense will start, beginning next academic year, to train professional military specialists as economists. The points that are especially important for military economists today are covered in an interview with Army General Vladimir Mikhailovich Arkhipov, deputy USSR minister of defense, chief of the Armed Forces Rear Services, conducted by our correspondent Boris Rachkov.

[Rachkov] We have been trying for several years now to move away from administrative command economic methods, striving to make the economy more effective and dynamic. What is the position of the Armed Forces on this?

[Arkhipov] In principle, we welcome any changes in our country that are beneficial for the domestic economy. However, a necessary condition for any reform should be maintaining the defense capability of the country at the appropriate level. This means, first of all, a stable delivery to us of the armaments and military equipment, and of the military-technical and other equipment and supplies, which—it goes without saying—not only objectively take into account the needs of the military, but also the need to demilitarize the economy which is by now clear to everybody.

The hard experience of our country, and of most other major powers, proves that under any circumstances the only real guarantor of a sufficient defense capability is the state, and a centralized administration of the process of military build-up. With all current perestroika processes underway, it is very important not to undermine the state basis of the development and supply of the Armed Forces. It is known, however, that some changes cause negative consequences for the entire domestic

economy. We are conscious of our tremendous responsibility to our people, and our position is that the Armed Forces should be somehow protected from risky experiments.

[Rachkov] Specifically, which consequences that are negative for the Army do you have in mind?

[Arkhipov] Here are just some facts from the rear services. Of 60 items of acute necessity to the troops—medical supplies and equipment—only ten were included in the 1990 state orders. In the process of contracting for military uniforms and footwear we received 15 refusals from enterprises, for a total of 250 million rubles [R]. Deliveries of fuels to the Armed Forces fell short by thousands of tons in 1990. These are the side effects of the transition of the enterprises, including those in the military-industrial complex, to cost accounting and self-financing, and all of this affects us. It is also a side effect of the liquidation of some ministries and departments, and of cutting down the assortment of items included in state orders. There are many instances when industrial enterprises refuse to enter contracts for deliveries to the Ministry of Defense.

In the current year, the situation is becoming even more difficult for the Armed Forces. As of the beginning of 1991, for reasons beyond the Ministry of Defense's control, less than 70 percent of the contracts for production and delivery of rear services equipment and other items had been finalized.

I cannot help but mention the "monopolism" that manifested itself markedly in the new situation. It hurts the interests of the entire economy, but, I would say, it especially hurts the Army. Sometimes we are forced to accept such contract prices that, if we accepted them, it would jeopardize the placing of the entire military production order. I will give you this example. The contract price for one meter of field uniform fabric almost quadrupled—from R2.75 in 1990 to R10.50 this year. Many enterprises—"monopolists" demand, in the form of an ultimatum, construction and other materials, automobiles, and personnel from the Ministry of Defense that exceed its capabilities, or even more outrageously, demand that we pay them in hard currency.

Under such circumstances there will never be enough money to pay for it. Besides, the efforts of the Ministry of Defense alone are not going to eliminate these side effects of reform. We need help, not only from the best minds in the scientific management field in our country, but also on the part of the public. It appears that only with their help can a mechanism for protecting the Army from undesirable consequences be worked out.

[Rachkov] What do you think about such an unavoidable phenomenon of modern times as conversion?

[Arkhipov] This phenomenon, dictated by the new political thinking, is not only inevitable, but has been ripe for quite a while. Nevertheless, it caught us by surprise. This, in addition to the difficulties enumerated above,

requires a new approach to the Army's economic basis. Because of conversion, the number of traditional enterprises among the suppliers of our products will fall sharply. On the other hand, during the process of privatization, and as the cooperative sector develops, many new enterprises, conglomerates, and associations will emerge. We will have to establish relations with them on a contract basis and, naturally, it will involve higher prices. Without appropriate measures on the part of the state the general supply, and with it the combat readiness, of the Armed Forces may decrease.

All in all, my deep conviction is that the transition to the market economy, the denationalization of the economy, and conversion should not lead to the loss of the foundations of the economic side of the defense capabilities. And the state sector of the economy should remain its main pillar of support. Its high profitability level may be ensured by an appropriate tax, investment, and social policy. Of course, this policy should be agreed on at the interregional and interrepublic levels, as well as at the Council of the Federation.

[Rachkov] Glasnost has brought to light a number of reasons to accuse our "military-industrial complex" of wastefulness, and our Army of being excessively expensive. What is being done to eliminate the grounds for such accusations?

[Arkhipov] Maintaining any army involves, of course, unproductive expenses. These are especially noticeable in the countries that fall into the superpowers category. There is no need to hide it—we have also had our share of excessive spending, and it has not been eliminated to this day. It is small consolation that the Armed Forces, by themselves, are less wasteful than the national economy as a whole, with its "suspended construction projects," uninstalled equipment, harvests that rot in the fields, and chronic bottlenecks on the railroads and in the ports.

The cost of maintaining our Armed Forces is, in many respects, relative, and it seems excessive only by our internal measures. But measuring it by our own bushel may be very misleading. The real troops readiness of any superpower needs an international comparison. This includes not only the fighters, rockets, or submarines, but their underlying financing.

Our defense expenditures are known now: R96 billion. The U.S. expenditures are \$300 billion. The comparison is in many respects artificial, but it is quite telling, regardless of what rate of exchange we use, official or commercial, let alone special or auction rates. If we use, for instance, the commercial rate of exchange, our defense expenditures turn out to be five times less than those of the United States.

Some "defense specialists" proposed that we reduce our defense expenditures to six percent of the national economy, that is, to R40 billion. Calculated at the commercial rate of exchange, that would be 12 times less than that of the United States. What do you think: Is this

acceptable? Remember also that the United States is not the only one with a powerful military potential.

Therefore it is vitally important for all of us to overcome the crisis in the economy in the shortest possible time, and to bring it up on the basis of the latest achievements in scientific and technical progress, and, of course, of an increased labor productivity. Then, I am sure, these expenditures on defense—which we do not intend to increase—will not look excessive.

Besides, in the future we intend to continue and strengthen one of the good traditions of our Armed Forces: achieving the maximum possible reduction in the burden of budget expenses for personnel by developing and increasing our own economic activities.

[Rachkov] If this is not a secret, can you tell more about it?

[Arkhipov] What kind of a secret can this be? This side of our activities has already been partially covered in one of this year's issues of *EKONOMIKA I ZHIZN*. I will only give you some more precise data. For instance, in 1990 alone, Ministry of Defense agricultural enterprises and military units' agricultural plots produced R380 million worth of food products. Our own supply provides three months of the military's needs in meat, four months in potatoes and vegetables, and three and a half months in eggs; thereby we save the country's food resources. We also fully satisfy the annual need for milk in child and medical facilities in a number of garrisons.

Each year, military hospitals and clinics provide quality medical care to over 400,000 people who are not related to the USSR Armed Forces, and another 12 million are given outpatient help in our polyclinics.

The Armed Forces regularly render help to the agricultural sector in harvesting. In 1990, we provided over 46,000 automobiles and 90,000 military personnel for this purpose. Therefore, it is even more unfair that a number of oblasts last year fell 220,000 tons short on deliveries of potatoes to the Armed Forces.

From 1989 military personnel have been participating, along with fulfilling our own construction needs, in building bituminous concrete roads in the non-Chernozem zone and in the northern parts of the country. They will lay 22,000 kilometers of roads before the end of 1995.

Our troops are the first to go in under extreme conditions and to provide effective help to our national economy in eliminating the consequences of various natural disasters and catastrophes.

Until now, the majority of these and other similar actions have been taken by us with our own resources and practically free. As the country's economy makes the transition to the market, we may have to change this order of things and use the income from our economic

activities directly to improve the living conditions and the quality of life for the military and their family members.

At the same time, the Army should not become just another economic structure based on the principle of full self-sufficiency. That is not what it is meant to be.

[Rachkov] So far, you have not said anything about construction battalions, the "stroybats", which have earned—unfortunately, not without good reason—a bad reputation among the Soviet public.

[Arkhipov] Your question already shows a misinterpretation of the problem. We have here, as they say in Odessa, "two big differences." There are construction or, really, engineering troops, which work for the Ministry of Defense, are part of its structure, and do the work directly related to its interests. For instance, in 1990, these troops built 57,000 apartments for military families.

At the same time, there are still military-construction brigades that are under the jurisdiction of various civil ministries and departments. These are the ones whose nickname is "stroybats." There are over 500 hundreds such formations, employing a total of over 330,000 personnel. It is they, with all their problems, that became a focus of the concerned public, although the Ministry of Defense has nothing to do with them.

Try to understand me correctly: I am not trying "to throw a stone into the garden" of neighbor departments. But statistics show that many negative phenomena that are attributed to the Army are concentrated precisely in these "stroybats." It is not accidental that the Ministry of Defense presented the government a proposal to liquidate them. However, to tell the truth, this proposal is not getting support from the interested ministries, which, apparently, are used to solving some of their problems at the expense of the law on compulsory military obligation.

I must say, however, that our proposal was supported by the Supreme Soviet Committee on Defense and State Security. The USSR president's decree of 15 November 1990 stipulates that drafting into military-construction units—with the exception of some ministries—will be abolished from the fall of 1991. By 1996 "stroybats" will cease to exist entirely.

[Rachkov] The criticism of the Army in some domestic information organs has turned into unstoppable pacifism. Under its slogans, in some areas the supply of military units and subunits is being boycotted. What can you say about this?

[Arkhipov] In brief, this is where our own internal illnesses such as separatism, nationalism, religious fanaticism, and political nearsightedness get linked with some ideas imported from abroad. Which ideas? There are some who are not satisfied even with the super accelerated, in my view, pace of reductions in our Armed

Forces in accordance with well known agreements. There are some who would like to condemn us to a practically self-induced, unilateral disarmament, without adequate reciprocity on the part of the adversary. They supply attractive examples: It is either Switzerland, which does not have a regular army, or Sweden, where defense expenditures are minimal. If we follow this logic, we will soon be comparing ourselves with the dozen window-dressing guards from Monaco. How can there be any parallel between countries that have not known war for centuries, and our state, which in this century alone has lived through three terrible armed invasions.

In our Fatherland, we cannot use any foreign standards in regard to issues of reductions and deep reform in our Armed Forces. From the times of the state and military reforms of Ivan the Terrible and Peter the Great, Russia has its own, extremely rich, experience in establishing and developing a national military organization. It has proven its viability and unquestionable advantages in a multitude of trials.

New Military Deputy Offers Opinions on Reform Plans

91UM0592A KRASNAYA ZVEZDA in Russian
23 Apr 91 First Edition p 2

[Replies to KRASNAYA ZVEZDA questions by Lieutenant-Colonel P. Falk, USSR people's deputy: "There Should Be a Battle of Ideas, Not of People"]

[Text] The fifth session of the Union parliament is, as they say, in full swing. Important political and economic questions are being discussed. We continue to familiarize our readers with the positions of the military deputies who were elected to the USSR Supreme Soviet body.

We would remind you that our correspondents asked each of them the same questions:

1. How do you assess the work of the former parliamentary body? What in it did not suit you?
2. In your opinion, what concept of military reform do we need?
3. What should parliament do this year?

Today we are publishing the answers of Lieutenant-Colonel P. Falk.

"From KRASNAYA ZVEZDA files." Falk, Petr Petrovich. Born 1951, nationality German. CPSU member.

Graduated from the Kachinsk Higher Military Aviation School for Pilots and the Saratov Agricultural Institute by correspondence, where he received an education as an economist. Senior navigator, serves in a training center.

USSR people's deputy from the Buzulukskiy Territorial Electoral District No. 248 of Orenburg Oblast.

1. I think that problems that are inherent in the political life of the country as a whole are illuminated in the work of the parliament. In the first place, this is a fight not against opinions and ideas but against specific people. This does not become our parliamentary life, does not bring any benefit, and only aggravates law-creating work. Unfortunately these tendencies are "automatically" carried over from the old to the new body of the Supreme Soviet.

As for the parliament that operated until rotation at the fourth Congress of People's Deputies, it had quite a few striking personalities and interesting people. It is no accident that many of them were "taken away" for work in republic organs of authority.

But what did not suit me? First of all, the fact that a confrontation emerged between the Union parliament and republic parliaments. Unfortunately, no specific steps have been taken yet for a rapprochement. This only intensifies the "war of laws." But, you see, there are opportunities for cooperation, at least by way of creating various deputy clubs. Only now has the deputy group of communists of the Union parliament begun to invite comrades from the "Communists of Russia" group of the RSFSR [Russian Soviet Federated Socialist Republic] Supreme Soviet. "Democratic Russia" invited us to it, to the Russian parliament. Yes, at times it is difficult to find ways to move closer. But it is necessary to do so to eliminate dissension as early as at the stage of law preparation. Otherwise, it will become more critical with each insufficiently considered decision. And it will become increasingly more difficult for us to get out of the crisis.

Consolidation, which society needs, will not come by itself. Consolidation is tolerance, and steps to meet one another halfway.

2. I studied the draft of the concept proposed by the Ministry of Defense. I took part in the work of the temporary commission of the Committee on Defense Affairs and Security which worked on the concept of military reform. But I am becoming more and more convinced that there is still no concept as such. There is at minimum an enumeration of measures on reorganization of the Army, which must be implemented in the future. And this is necessary, but the problem is that the recent war in the Persian Gulf demonstrated new capabilities of both equipment and human potential. And all this has yet to be interpreted.

What is evident even from a superficial analysis of the operations of the multinational forces, first of all of the Americans? Firstly, skillful suppression of PVO systems, massive air strikes, and destruction of the most important facilities in the entire theater of military operations. Well thought-out air support for the ground forces. This made it possible to conduct operations on land with minimal losses.

Of course, the analysis of this war should be critical and based on specific conditions. But it is already clear that

aviation must realize absolutely new development—on both a tactical and technical plane. Primarily in order that its use contribute to a decrease in losses on the part of the other services of the Armed Forces. Consequently, there is a lot to think about.

One more thing. We have still not come up with a final definition of a professional army, a composite army, etc. For some reason only the American model is taken as an example. There is a clash of opinions concerning the financing of future structures. But there are no specific calculations, no one has produced them. What is the point of this argument? Let us consider...

However, we should already be taking the first steps toward the future of our army. It is said that officers in our country are already serving on contract. No, as long as the former setup, which should be changed, is preserved. Undoubtedly a contract basis is needed in the relationship between an officer and, for example, a ministry or glavkomat of a combat arm. That is, mutual obligations and mutual guarantees.

For example, an officer should know clearly that after the expiration of conscientious service he will be provided housing in such-and-such a city. This is only a small detail. But a person in the service would feel somewhat confident. Incidentally, such principles of mutual relations are already taking root. Most important of all here is guaranteed social insurance for servicemen.

Well, the unit, in my opinion, should be the main element of reform. This is where we should start. What measures can be undertaken right now? For example, broadening the authority of the commander. Independence in the resolution of personnel questions. Financial independence. Use of the principle of material incentive.

3. The parliament has already in real earnest approached those questions that I raised in my preelection program. A law has been adopted on the Soviet militia. At this fifth session a draft law on the organs of state security has already been reviewed in the first reading. A package of laws associated with military reform is planned. So, there is a possibility that everything I talked about above will be introduced as early as this year. It is impossible to delay reform any longer.

Col-Gen Novozilov Stresses Lack Of Effective Reform Among Troops

91UM0395A Moscow VOYENNY VESTNIK in Russian No 11, Nov 90 (Signed to press 12 Nov 90) pp 3-6

[Interview with Col-Gen V. Novozhilov, Far East Military District Troop Commander, by Lieutenant-Colonel V. Kutishchev: "Qualitative Parameters: Slogans And Reality"]

[Text] **Military Reform. You probably won't find anyone today who is indifferent to the problems it is called on to solve. The fates of society, the state, and the Armed Forces**

are too closely intertwined. Meanwhile, some people say that perestroika in the Armed Forces began as far back as April 1985. They even talk about qualitative parameters. How can we ascertain where we have been successful during this time, and where we are marking time? At VOYENNNY VESTNIK's request, Colonel-General V. Novozhilov, Troop Commander of the Red Banner Far East Military District, answered these and other questions.

Viktor Ivanovich Novozhilov belongs to the generation that grew up during the years of the gravest ordeal the Soviet people have endured. The war years predetermined his choice of vocation. And Viktor Ivanovich's entire career differs little from the biographies of many who devoted their lives to the army.

He enrolled in the M.V. Frunze Second Ulyanovsk Tank School in 1959. After graduating he commanded a platoon for six years, then a company and later a battalion.

He graduated from the R.Ya. Malinovskiy Armored Forces Academy in 1973 and successfully applied the knowledge he had gained in practice. Later, having risen to the post of division commander, he enrolled in the General Staff Academy.

Where hasn't Victor Ivanovich served during these years? However, he likes his most recent post the best. He has grown fond of the Far East and the people who live there.

[VOYENNNY VESTNIK] Comrade Colonel-General! Today military reform is a serious problem of concern to not only officers but also the entire country's population. Some say that it began in April 1985, while others maintain that we are only just approaching it. What is your view of the processes taking place in the Armed Forces?

[Novozhilov] I will say frankly that I have mixed views. What is currently taking place in the district's units and in the army as a whole is not yet reform. So far only the number of troops is being cut, and this entails many problems and difficulties. We understand that this is a forced measure. Nonetheless, officers and warrant officers who are serving in the extremely difficult conditions that obtain in the Far East lack the most elementary thing—a home of their own. I don't want to blame the city authorities for this: There's little they can do to help us. We need a state program.

Another problem is that such a rapid reduction of the Armed Forces is depriving commanders and political officers of confidence in the future. I'm not talking about qualitative parameters in combat training. Social safeguards for servicemen and their families must become an indispensable part of military reform.

Nevertheless, I believe that we are only just beginning to understand what military reform is. For example, the Defense Minister, in KRASNAYA ZVEZDA, depicted

its aspects only in general terms. By no means everything is clear as yet. Therefore, I repeat: I have mixed feelings about it.

[VOYENNNY VESTNIK] A lot of people today are talking about qualitative parameters achieved in the course of perestroika in the USSR Armed Forces. What concrete progress has the Far East Military District made in this area? What kinds of problems are the troops having to deal with today?

[Novozhilov] In shifting to a new organizational-organic structure, we have abolished army and army corps directorates. We are reducing the number of combined units. In keeping with the new doctrine, they will be charged with missions of a purely defensive character.

As for combat training per se, there's still much to be done here.

So far, "qualitative parameters" remain merely a theory that is not seriously understood by the troops. I once spoke with a regiment commander on this subject, and he told me bitterly: "I used to have a full-fledged unit, but now its strength has been cut. Has our combat readiness been enhanced, has the training process become more effective? Hardly." And one has to agree with him.

Until the state provides the Armed Forces with everything they need, we in the district are not going to call for qualitative parameters in combat training.

[VOYENNNY VESTNIK] Comrade Colonel-General, a question arises: Are you saying that there is no combat training in the district as such?

[Novozhilov] You couldn't put it that way. No one has abolished combat training. All the officers and I still bear responsibility for it. Combat training is under way in the district. But where quality is concerned, the fact that its results should be better is another matter. If we analyze the past training period's results, we see that they vary from unit to unit. There are some divisions that got a rating of "good." The personnel of these divisions really do have a firm mastery of their combat equipment and weapons and are skillfully accomplishing their combat-training missions. There are units and subunits that had mediocre results. Unfortunately, we also had units in which personnel training proved unsatisfactory.

[VOYENNNY VESTNIK] What accounts for the fact that despite all our difficulties today, some are getting fairly good results, while others aren't?

[Novozhilov] There are many reasons, in my opinion. One is the deteriorating quality of commanding officer training at the platoon, company, battalion, and regiment levels. I have asked myself many times: Why are commanding officers losing their professional skills? And I've concluded that the reason is poor training at

military educational institutions. You talk with a graduate and are astonished to learn that he has never conducted exercises in his life! Here's a very recent example.

A graduate of the Frunze Military Academy took command of a regiment. I asked him: Have you ever organized battalion or regiment exercises? The answer was no.

When has such a thing ever been true of the Soviet Army? An officer rises to the point of commanding a regiment—or even a division—and not once has he ever directed battalion exercises, not to mention regimental exercises! What kind of combat training quality is there to speak of here?

Our military educational institutions have lost many fine traditions in recent years. They have lost their combat experience. It used to be that they did indeed train professional officers. Now they turn out engineers. As a result, many haven't mastered the methods of organizing personnel training and education and of molding cohesive multinational troop collectives. Needless to say, it's very hard for young battalion and regiment commanding officers.

Then you have to consider the kind of conscripts the district is getting. Last year, nearly 60 percent were young people from the Central Asian republics. This year the figure was even higher.

Under these circumstances, it would help if commanding officers had a knowledge of the basic principles of teaching and psychology. However, they do not. Furthermore, many officers who had experience in working with multinational collectives have been discharged. One has to admit that here the sharp cutbacks in the officer corps have played a negative role.

[VOYENNNYY VESTNIK] Yes, both the army and society are already incurring irreplaceable losses. The army organism's genetic chain has lost a major link that contained enormous experience in organizing the training process and working with people. A similar thing occurred in the 1960s, when 1.2 million servicemen were discharged. Don't our problems go back to that?

[Novozhilov] Without a doubt. And the current cutbacks have also had a negative effect on the prestige of officer service. Young officers prefer to leave the army now, while they're still full of strength and energy and can still start life over.

[VOYENNNYY VESTNIK] But let's get back to combat training. What other factors, in your view, are preventing the achievement of qualitative parameters?

[Novozhilov] Poor training facilities. We still see a lot of things that were built in the 1930s. I am not exaggerating one bit. Our district has units that lack training facilities

altogether. The men have nowhere to drill. We even lack modern facilities for training units that turn out lower-rank specialist personnel.

[VOYENNNYY VESTNIK] Why?

[Novozhilov] We can't solve the problem because we lack the funds. For example, the district recently acquired a cockpit simulator for pilots. But it's still packed in boxes, even though it cost millions of rubles. And not because no one wants to set it up. There's simply no money to construct a training facility. And so combat training suffers. Yet cockpit simulators enable flight personnel to not only extend equipment service life and conserve other aviation resources, but also to acquire strong piloting skills without leaving the ground.

These are complex questions. Especially today, at a time when all resources have been assigned to housing construction.

[VOYENNNYY VESTNIK] The example involving the cockpit simulator that cost millions of rubles shows once again that those who skimp end up paying double. But in this instance military pilots' professional skills suffer as well, and it's hard to assign a ruble value to these skills. And since we've started talking about material facilities, I would like to mention the fact that the district has taken a decision to the effect that training subunits are going to train only mechanics and drivers. Isn't this wasteful in view of the training units' extensive material facilities and equipment? Aren't the roads leading to the tank gunnery range and to the firing range going to become overgrown with weeds?

[Novozhilov] No, the training centers' material facilities and equipment are not going to sit idle. We've found a solution: We're converting them to provide specialist training to unit-assigned reservists.

Frankly speaking, what did these unit-assigned reservists used to do at training camps? Mainly construction work, cleaning up the premises, and so on. They amounted to an unpaid workforce. Now that we are converting some training units, the state of affairs is fundamentally changing.

One garrison already has two such units. Drills are held on superbly equipped training sites and under the direction of experienced officers and sergeants. In this way we have retained both material facilities and personnel. And we are training good reserve specialists. They work with equipment or in the field for six hours before lunch, after which they have independent study. While they used to request that give them military training, now they say, "give us some free time."

[VOYENNNYY VESTNIK] This is no doubt a professional approach to reserve personnel refresher training.

[Novozhilov] Naturally. It's no accident that we have less laxity and tighter discipline at training camps. We've got military people attending them now. And don't

forget that at the same time we've relieved line units of some burdensome responsibilities.

Eventually such regiments will be set up in every kray and oblast. We've taken the idea to the General Staff, and we hope that in time our method will be adopted in all the military districts.

[VOYENNNYY VESTNIK] It's a great idea. But it is disturbing that officers in these training subunits serve 10 to 15 years in the same post. The prospect of advancement disappears, and with it the desire to conscientiously perform one's duties. Does this concern you in any way?

[Novozhilov] Yes, this is very characteristic of our district. As a rule, officers come to us as replacements after having completed three or four years of service in interior districts or in the groups of forces. They are not assigned to the post of company or battalion commanding officer immediately. They get used to this. Another two or three years go by. And on the other hand, personnel departments are in no hurry to offer these officers new posts at the next higher level. And so the years go by. Such platoon commanders are to be found in our district as well.

I once invited some in for a talk. The chief of the district personnel directorate was present. I offered them the post of company commander, but in line units. They turned it down, since both the training subunit and the latter post entail the rank of "captain." But the training subunit has a clear-cut daily routine and a well-organized training process, while the latter position was an unknown quantity. As things stood they had apartments and their wives had jobs. At a new location it would be hard to get an apartment and to find work for their wives. And so they said they would agree to a training company or to go to a military commissariat.

[VOYENNNYY VESTNIK] They're afraid of serving in the line units.

[Novozhilov] Yes, because they don't know what life is like in them. There is but one solution to this situation: Officers cannot be allowed to "overstay their welcome" in training subunits. After serving two or three years, they should be transferred to a line unit. Let them grow as commanding officers. A platoon commanding officer cannot be an instructor and nothing more.

All this is linked with reform in one way or another. And any reforms are frightening. This is natural. Even senior lieutenants whom we offer posts in line units take a cautious view of such reforms.

[VOYENNNYY VESTNIK] Even so, the people the reforms scare most are not senior lieutenants or even captains.

[Novozhilov] Naturally, leadership personnel are the least enthusiastic about changes. Why? Everything seems fine as it is. And once you start tinkering with things that are already established and working smoothly, you never

know what you'll end up with. Moreover, let's not forget that these people have served in the Armed Forces for more than three decades. Naturally, they have set ways of thinking. As a result, it's hard to accept the new. When the middle-ranking officer corps decided that military reform was essential, it was clear to them that they might be pushed aside. And they started talking loudly about military reform. Now life is forcing us to do something. A fundamental break with established structures is under way in society. And the army, as an element of the state mechanism, is undergoing change. But by virtue of the aforementioned factors, the processes of perestroika are proceeding at a slow pace. We are rightly criticized for this. I am convinced that had military people been the first to embark on army reform, there would not be such unbridled criticism of the Armed Forces.

Major Lopatin says that the leadership is preventing him from formulating and introducing a concept of military reform. But I personally cannot understand how the head of a Marxism-Leninism university can deal with the problems of the entire Armed Forces.

[VOYENNNYY VESTNIK] How do you see the role of the district troop commander in the impending reform of the Armed Forces? How real is his influence on the course of perestroika processes?

[Novozhilov] I am convinced that his influence can and must be real. Here's just one example. In conjunction with directorate officers, we drew up a number of concrete proposals on military reform, proposals in which the Defense Ministry showed an interest. Last year we were invited to the Defense Council, led by Mikhail Sergeyevich Gorbachev. And they listened to our proposals.

[VOYENNNYY VESTNIK] And what do you do if you know that your proposal makes sense but they don't accept it?

[Novozhilov] We have to argue and prove it.

[VOYENNNYY VESTNIK] And did you argue?

[Novozhilov] Without fail. I even argued with the Defense Minister. What about? Moscow decided to reduce the strength of one of our deployed divisions. An order to that effect had already come down. But the division has an excellent military compound and good training facilities and equipment. All the officers and warrant officers have apartments. And they wanted to cut a division like that! I had to discuss the situation with a lot of people, including the Defense Minister. I proved my point. We saved the division and kept its personnel intact.

It is my deep conviction that there is no need today for main commissariats and headquarters. They can be eliminated. The Defense Minister is demanding a 30 percent cut in administrative personnel. That's the place to make cuts!

Concrete measures like these are what will allow us to move from talk about reform to practical actions. I think that VOYENNNYY VESTNIK will also help us in this.

[VOYENNNYY VESTNIK] Thankyou, Comrade Colonel-General, for the discussion.

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Reorganization of Command Elements

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[Article by KRASNAYA ZVEZDA correspondent Lt Col O. Bedula under the rubric "Military Reform: The Personnel Problem": "The Commander Picks His 'Team'"]

[Text] As stressed in the draft concept of military reform, lying at the basis of the effort to improve the system of cadre training is raising of the role of the human factor. In connection with the Armed Forces reductions, it is necessary to define the officer corps needs for the next 10 years with respect to all military occupational specialties, levels, and kinds of training. All this is the tomorrow of our Army, so to speak. However, much of what is discussed in the draft is already being done. The abolishment of a number of officer positions, withdrawal of troops from Eastern Europe, large unit and unit inactivation and table of organization changes have caused an unprecedented reshuffling of cadre. How are cadre selection and assignment problems resolved under these difficult conditions? To what extent is there consideration of the human factor spoken of in the concept plan?

As I took up the study of this problem, I recalled something that had occurred, an event I think was remarkable. As we all know, in September 1989 the Volga-Ural Military District was formed. Colonel General A. Makashov, who was appointed commander of the district, reported to his new duty station ... accompanied by a group of officers and generals. I remember how certain officials of the "old" staff reacted: They saw the change in leaders filling the key slots as a definite violation of the reciprocity of troop structure, a deterioration in level of command. However, the new "team" took up its duties with vigor. The aspects of reciprocity and operational efficiency were not brought up, since this all had been attained during the previous joint work. The new staff in a short period of time was able to not only resolve a number of organizational problems, but also assure successful completion of the troop training year.

In a word, the "Makashov team"—a phrase borrowed from the current political vocabulary—exhibited harmony in its work, the professionalism befitting the situation, and similarity of views on military, state, and social problems.

Nevertheless, how much justification is there for this kind of personnel "tactic" for an army that is entering an arena of deep transformations?

"I hesitate to be categorical in accepting or rejecting this tactic, as you call it," said Colonel General A. Makashov in this regard. "There is much to think about here, considering the scope of reform and level of tasks facing us in carrying out this reform. As far as that one event is concerned, it should be viewed in the context of the particular situation of that time: the combining of the two military districts. In our case, I consider that there was justification for the measure, for resolution of a complex of difficult problems was facilitated by my having at hand people whom I knew well."

A few thoughts on the subject went through my mind. No, concepts such as "General S's team" and "Colonel V's team" did not appear to have a valid existence in the Army. Nevertheless, in reality they have been known to exist. I served an eight year tour of duty in the Turkestan Military District. I recall that at that time highly-placed officials changed their stations every 18 to 24 months. The district first deputy commander and first deputy chief of the political directorate left the district that was "near the front" for a promotion. Virtually each one "helped" his former subordinates—the ones he considered to be the most hard-working—to continue to work at his side. This time it was at the new duty station. I can remember that officers after the departure of their "boss" were in an agony of suspense: Who was to be selected this time?

Not everyone was lucky enough to leave, of course. The new chief also tried to retain the "elite" cadre. Used among other ways to "retain" personnel was the slogan "Service in the Turkestan is honorable and responsible." Incidentally, many followed the slogan throughout their service.

It should be understood that it was not given the subordinates to know how the chiefs decided their fate; this was not advertised. But who today can deny that there were in the "personnel policy" such things as a "telephone right," personal ties, and many others. As a matter of fact, the chiefs themselves were at times in that kind of situation: Some of them were hand-picked. It was not always possible to predict the way in which this personnel merry-go-round worked.

There is no doubt that this kind of "method" of selecting and assigning cadre, even though it may produce a functional collective of like thinkers, is susceptible to criticism from the standpoint of ethics. Patronage, use of friendships, etc., did in the final analysis tend to degrade the leader himself. Part of the reason for the existence of this semiofficial way up the service ladder was due to the "blockage" of the official route by all kinds of bureaucratic entanglements, with there being a general understanding that it was nobody's business that a collective of professionals was being staffed by persons who differed sharply in their cultural level, education, and habits. The

district political directorate provided me with data relative to the number of personal conflicts in units and large units over a period of several years. The figure was impressive. Dozens of persons let their service and personal conflicts be known; quite a number of commissions of all levels participated in analyzing and mediating the conflicts. Many conflicts necessitated the application of certain organizational measures intended to effect a resolution.

I recall the bitter words of a unit commander when he informed his deputy that "We were brought together by an order issued by the senior commander. We must work together whether we like each other or not." As far as I know, though, they did not work well together. People and combat readiness suffered. Is this a way to endow an age-old desire of having a collective of like minds with legitimacy—by attaching organizational measures intended to effect a resolution?

"The need today to consider psychological compatibility in making assignments is obvious," agreed Major General S. Safonov, chief of the district Personnel Directorate. "One thing is clear: It is not enough to recite the military oath and stick to the same orders to have people work tongue-in-groove."

True, there is a question here: With what kind of structure is the commander to start putting together "his" command? Major General Safonov is of the opinion that this should be the regiment. He believes that this would be served by setting up in each large unit a psychological service consisting of three or four men and subordinating it to the large unit chief of staff. The service's mission would include the application of advanced techniques, tests, and computers to studying the personal, performance, psychological, and other individual traits of officers and warrant officers. The data so gathered would be used as input by a commander, efficiency board, and officers' assembly of the unit, and also by personnel organs of the large unit and district. The data bank would help to reduce a commander's and efficiency board's errors to a minimum as they make selections of candidates to fill a vacant slot.

Although the idea is still in the developmental stage, necessity dictates that it be put into practice. The district Personnel Directorate recently considered a request submitted by Lieutenant Colonel M. Davydov, who had been designated as regimental commander. He requested that empty battalion commander slots be filled by two officers with whom he had served in another unit.

"We had other candidates who were just as worthy," Major General Safonov told me. "Nevertheless, we went along with Davydov's request. The way matters are going in the regiment is an indication to us that we did the right thing."

"But what if there are no worthy candidates in the district to fill a vacant slot?" I asked Stanislav Ivanovich.

"Then we go to the Ground Forces Personnel Directorate, the Main Personnel Directorate, academies," explained the general. "This would tend to set up horizontal ties—to personnel directorates of districts."

It would be interesting to know what units think about this.

"The idea of a commander picking his team is something I support," Colonel V. Vasyunin, chief of staff of unit X told me. "What is the advantage? Increased moral responsibility for state of affairs and unity in a collective, since I think this would be a collective of like-minded, real professionals. The regimental machine generally would work better toward the achievement of combat readiness."

I can imagine a reader's doubt: The Army is undergoing reduction, thousands of officers are being discharged, hundreds are suffering removal from the table of organization or reassigned. Is it proper to go on "selecting" the human commodity in this kind of situation? I think that we must come right out and say it: We have been doing this kind of "selection" for quite some time. An example is military commissariat assignment of draftees to branch of service and combat arm. Military schools and academies also practice selection.

Or take training subunits. The "buyers"—as they are called—from line units visiting for the purpose of selecting graduating students are very particular as far as making up their command elements is concerned. This is understandable: The combat readiness of the units joined by the replacements from the "training places" will depend upon the way they perform. As reported by KRASNAYA ZVEZDA, the Ground Forces Main Combat Training Directorate moved ahead in this regard. It has introduced in training centers and certain units of the Far Eastern and Belorussian military districts on an experimental basis a standard program of training gun crew members. The purpose is to enable subunit commanders to select candidates for promotion to noncommissioned officer from the graduates at a later date, after they have served six months in a unit as gunner-operators.

Do you think that any less care is exercised in selecting cadre for higher levels, say, as adjutants or officers who will be given special assignments?

"Who does not select particular individuals if he has the chance?" asked Major General Ye. Makhrosenkov, first deputy chief of the district Political Directorate. "Let us not put that in the same category as some kind of seditious act."

Well, there is logic to that. But I believe that also logical is the question: What happens to those who are not taken into any "team?"

We can see that many questions arise. It is necessary to devote some thought to this. Reform opens up the possibility of initiative and search. It is unlikely that all

ideas will be implemented. Nevertheless, it is important that they not be permitted to die on the vine, that they be tested and locked into sore points of the army machine.

Feodosiya Seeks to End Status as Closed City

91UM0344A Moscow KRASNAYA ZVEZDA in Russian
30 Jan 91 First Edition p 4

[Article by Captain Third Rank V. Maryukha, KRASNAYA ZVEZDA correspondent: "Feodosiya's Military Secrets"]

[Text] It looks as if we are already getting used to the fact that few persons are responsible for seeing to it that existing laws and new laws are obeyed. Even those who are required by their positions to enforce laws are violating them. This is especially characteristic of local organs of authority which are not particularly favorably disposed toward union and republic decisions. Still, it is impossible to make the guilty answer for their actions. In order not to make unsubstantiated statements, I would like to give a specific example.

The geographical location and the unique natural conditions have played a bad joke—by current standards—on Feodosiya, a city that is essentially closed to foreigners. But it was not the military at all that closed Feodosiya. Guided by the USSR Law on State and Military Secrets, the government periodically publishes a list of cities and regions closed to visits by foreigners. The last such decree was passed on December 8, 1990. It differs favorably from its predecessors because over sixty percent of formerly closed areas are no longer considered secret. But Feodosiya and some cities and areas similar to it have remained closed.

Maintaining military and state secrets is a very costly matter. In the USA, for example, when working out a new project, up to twenty percent of the project appropriation is designated for maintaining a secret environment for the project. In Feodosiya, tens of millions of rubles will be needed just for organizational measures to ensure security. The military budget cannot afford such expenditures, while the deficit in the state budget does not allow even a hope for such an "injection." Displacing scientific work in Feodosiya will cost even more. At the same time, unfortunately no other place offers conditions that would be as ideally suited for the work being done.

However, neither the Feodosiya City Council nor the Crimea Oblast Council wish to listen to these arguments. From the time of the last election campaign, the USSR Supreme Soviet and other bodies have been receiving letters and telegrams demanding a change in the status of the city and proposals for future development of its infrastructure without regard to defense requirements. The driving force behind these proposals is the goal to attract foreign firms specializing in tourism and the organization of vacations. This was the dominant idea of a number of candidates running for deputy positions, and having convinced their constituents that once they

rent their land to foreign firms they will live in clover, these candidates received their long-awaited mandates. It is possible that they themselves believe that foreigners will rush to make themselves at home in Feodosiya and invest millions of dollars in the construction of an international airport, hotels, casino, and camping grounds, and the moneybags from the Old and New World, instead of going to the Hawaiian Islands will be standing in line for tickets to the Crimean health spas. Otherwise, how can it be explained that last year, by invitation of the Feodosiya City Council, over thirty representatives of foreign firms visited Feodosiya to discuss possible future projects. The possibility of such cooperation may be in the spirit of the times, but the invitees came to the city without permission of competent organs, and negotiations were carried out without the required approval; that is, until a government decision is made on "opening" the city, any joint activities with foreign firms are forbidden.

Among the people who know about this are A. Badodin, member of the Presidium of the City Council, who is the most zealous proponent of opening Feodosiya; N. Bagrov, chairman of the Oblast Council; and other supporters of local interests. They know, but they are in no hurry to implement the government's decision. Moreover, in addition to the requests sent to the higher echelons of government, a committee on opening the city is being formed, and human emotions are heating up, assisted by the local press. Proof—calculations of costs for transferring scientific research entities to another place, construction of city infrastructures oriented toward international tourism—is rejected outright and instead, they are building castles in the air, with promises of future well-being, thanks to foreign spenders. And in all this, no one is even trying to doubt whether foreign firms will go for investing resources without a guarantee of receiving quick profits. Also, according to our laws, foreigners do not have the right to count on acquiring sole ownership of land, and the ancient land of Feodosiya may be of interest to tourists for perhaps a day's excursion. These two problems, together with others, significantly increase the risk for entrepreneurial activities; therefore, not be as many will even want to start this kind of venture as the local authorities believe.

But it is not the high costs of moving the scientific facilities or the illusory rainbow-like plans for the future that make the military concerned about Feodosiya's present status. The technical capabilities of intelligence are such today that even one person could place equipment in a restricted zone—equipment that could penetrate the depths of state secrets. In addition, today the search for information that comprises state and military secrets is directed more toward scientific work, technical parameters of weapons and equipment, and technology and technological development. It is no coincidence that after having received a "go ahead" to establish joint enterprises, some foreign firms began to express an interest not in the industrially developed regions of our country, but out in "wild" spots, located in the immediate vicinity of firing ranges and directrices of rocket

launches. And in opening up previously closed areas, new ones had to be closed in places where local interests threatened state interests.

"On the basis of understandings that were reached, we gave the West information on the disposition of our units in the European zone of our country, their composition and armament; we opened up passages for foreign vessels in our internal seas where our naval bases are, and we declassified many subjects that were formerly secret," according to Captain First Rank V. Fedorov, Deputy Chief of a section in the Naval Headquarters. But all these are unilateral actions, and foreign intelligence services are not reciprocating. Our glasnost has allowed them to save tens of millions of dollars, and local authorities—to serve their own interests—are demanding that everything else be declassified, even those subjects that are of great interest to Western intelligence services.

In order to save Feodosiya from the hasty decisions of local authorities, it was decided last November to turn to the president of our country and have him personally look at all the material. The proposals are also supported

by the republic authorities who know that they will not find funds now for the development of the city. But even this is not stopping the flow of recriminations and indignation on the city's status.

How then can military and state secrets be preserved when seemingly no one has the power to restrain local interests? This is not at all an idle question if one considers that the list of information comprising state secrets was last published in the open press in 1924, and today it is obsolete, not only morally, but also in other respects. Until a new law is passed, we have legal acts and governmental decrees, which have been violated for a long time without any protest from anyone. In addition, seeing how our foreign policy is opening to foreigners what was previously closed to us, the initiators of declassifying at local levels do not see anything dishonorable in also revealing the remaining secrets. This means that we need not only a law on state and military secrets, but also a mechanism capable of regulating the observance of local and state interests. Without this, even if there were a law, it would be doomed failure, and maintaining secrecy would be difficult. And needless to say, not only in Feodosiya.

Arkhipov on Market Impact on Military

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[Interview with Army General V.M. Arkhipov, Chief of USSR Armed Forces Rear Services, by Colonel R. Chekmarev; place and date not given: "The Market Economy: The First Steps"]

[Text] The rainy autumn this year has been remarkable for its unusually alarming character. The debate on ways to extricate the country from crisis has first brought disappointment and then again raised hope in the people's souls. And now it has been decided: It will be the market!

So, we are moving away from the administrative-planned system in the economy and are taking our first steps toward market relations. What effect are they having on the Armed Forces? What is the state of affairs today and for the immediate future? These and other questions posed by Colonel R. Chekmarev, editor of a section of the journal, affecting the most acute problems of the life activity of Soviet Army and Navy personnel, the course of conversion, and urgent steps to stabilize economic ties, are answered by Army General V.M. Arkhipov, USSR deputy defense minister and chief of the USSR Armed Forces Rear Services.

[Chekmarev] Comrade Army General, military people, and in particular those workers in the rear, are asking this question: What will the start of market relations be like in practice in the Armed Forces, with their rigid centralization, strict funding, and other special features of life and activity?

[Arkhipov] Today there is no absolutely clear and unambiguous answer to that question, nor can there be, because the entire country is embarking on a new and hitherto unexplored stage in its development. The program for the transition to the market adopted by the USSR Supreme Soviet does not contain a section devoted to the study of and long-term work on questions concerning the country's defense or the functioning of the Armed Forces. But the subject has been discussed many times. The opinion has been expressed that our defense complex is the child of the entire people, the result of gigantic joint efforts by many generations of Soviet people; second, it is a most crucial area, where unjustified risk, randomness, and hasty experiments are impermissible. Accordingly, when changes are being made, each step must be carefully considered, and any decision must be verified and accounted for over and over.

This does not mean that the military field will remain, as it were, "frozen" and isolated. We live in the real world, and the general changes in the country will impact totally on the Army and Navy. To put it graphically, all of us with shoulder boards—from the marshal to the enlisted man—must participate actively in this process and seek out and find practical solutions to the tasks confronting us. And I would divide these tasks into three main

categories, namely, supplying the Army and Navy with weapons and military equipment; organizing all kinds of material-technical supply under the new conditions, including food and clothing; and resolving a set of social problems that directly affects the interests of the various categories of servicemen and the members of their families, and workers and employees.

[Chekmarev] The understanding by our parliamentarians of the importance of defense questions is, of course, reassuring. But, when one is among the troops and at enterprises of the defense complex, one observes a certain disorder in the previously solid ties with the various sectors of the country's national economy, and that people are beset by a feeling of confusion and lack of confidence in the future...

[Arkhipov] Yes, unfortunately the picture taking shape is not a happy one. Palpable interruptions are occurring increasingly in the previously smooth-running mechanism by which the Army and Navy are supplied. Despite the extremely significant troop cutbacks and the increasing demands for quality parameters, the Armed Forces are not receiving any noticeable increases in their allocations to develop weapons and military equipment and conduct scientific research and test-and-design work, nor are they being allocated material resources and food to provide social guarantees for servicemen and their families. On the contrary, budget allocations are being deliberately reduced. Against the backdrop of this reduction (and given the general increases in wholesale prices for raw materials, materials, fuel, food, and so forth), conditions for the vital activity of the troops are deteriorating sharply.

With the transition of industrial enterprises to cost accounting and self-financing, the elimination and reorganization of a number of the ministries and departments, and the cutback in the range of articles included in state orders, there are increasingly frequent cases of refusal by many enterprises in the national economy to conclude contracts to deliver output for the Ministry of Defense. They are switching to the production of civilian output which is more profitable for them. Thus, the Ministry of Defense is losing industrial production capacities that were created over the years and which it will be very complicated to restore should the need arise. Even at enterprises in the defense industry, under the flag of conversion particularly zealous radical leaders are failing to think about the consequences and are dismantling unique machine tools and equipment.

[Chekmarev] But this may lead to unfortunate results. Can it be that the country's defense, the guarantee of security, and indeed the very existence of a people in a world bristling with weapons, can depend on the arbitrariness of individual producers? There should be a unified, coordinated program for conversion.

[Arkhipov] The program devised for the transition to the market reflects the overall approach to military questions; provision is made for further reductions in state

defense spending, and support for the Armed Forces is not considered. Proceeding from this, Marshal of the Soviet Union D.T. Yazov, USSR defense minister, has set the task of devising on a priority basis a concept for their development as applicable under the new conditions. This has been defined in general terms and is now in the stage of detailed work.

What do I think is now particularly important? It is essential to conduct a careful analysis of the state and the course of fulfillment of orders for weapons and military equipment (VVT) in terms of deliveries and developments by the Union republics, and by oblasts in the Russian Soviet Federated Socialist Republic [RSFSR]. When this is done it is essential to take into account the total volume of orders and the proportion of state orders and existing business ties with the producing enterprises, and organizations that are developing weapons and military equipment, and of the opportunities available for further development during the transition to a market economy. It would be useful here to review the procedure for the development and purchase of weapons and military equipment.

Another task of no less importance is to define the role, place, and opportunities for developing the industrial enterprises of the Ministry of Defense to produce the output we require, so as to provide assistance in the form of partial compensation for shortfalls from the defense people and the national economy. Of course, additional funding is needed for this. Along with centralized allocations to collectives at enterprises it is high time to engage actively in commercial activity, taking advantage of our own production-technical and scientific potential to meet various orders, including orders from civilian organizations.

It is clear, however, that the main supplier of weapons and military equipment is the defense complex. The situation is similar with foreign armies. I therefore deem it advisable to create as part of the Union budget a special reserve fund to provide compensation for expenditures associated with the inevitable price increases for military products.

[Chekmarev] The cutbacks in the Army and Navy are freeing up military equipment that has already been developed. It is common knowledge that the process of selling it in the national economy is now under way. But signals from readers in various parts of the country indicate that this first attempt has been unsuccessful. It has provided almost nothing apart from a great deal of fuss for the military units.

[Arkhipov] That is not quite so. Now, as a rule, of the total obtained for the sale of output 20 percent is transferred as income for the enterprises and organizations of the Ministry of Defense. Some 50 percent goes as income for the state, 10 percent to the local budget, and 20 percent to the territorial organs of the USSR State Committee for Material Technical Supply. Of course, the income derived does not cover all costs. The time is

ripe for a review of the procedure for distributing these sums. In our opinion, when military-technical property is transferred for sale in the national economy, the money thus obtained should be returned to the fund holder, that is, to the customer who ordered the property in question, to finance orders placed with industry to make up for the property transferred, and to conduct scientific research and test-and-design work associated with making improvements in military equipment, and also to subsidize enterprises and organizations involved in its development, manufacture, and testing. This question has been submitted to the government for review.

In passing, I would like to express just one more thought, namely, that I think that the time has come for the collectives at scientific research institutes of the Ministry of Defense to make provision in their plans for cooperation with civilian institutions in the field of joint scientific research, and also to work on economic contracts in the interests of the national economy. This is one of the paths of cost recovery [samookupayemost].

[Chekmarev] Comrade Army General, to judge from the mail from readers, the question of providing the Army and Navy with everything they need for life is now becoming acute. This was the subject at a meeting that took place between RSFSR Council of Ministers Chairman I.S. Silayev and the command-political leadership of the branches of the USSR Armed Forces, and districts and fleets deployed on the territory of the RSFSR. What is the state of affairs today and for the immediate future?

[Arkhipov] There has recently been a noticeable decline in the level of interaction between the Armed Forces Rear Services and the various departments and sectors of the national economic complex, including in the RSFSR. Particularly with respect to matters pertaining to supplying the troops and fleet personnel with, in particular, meat, butter, various kinds of flour, and canned fruits and vegetables. The main reason for this is the repeated interruptions in supplies from Astrakhan, Rostov, Volgograd, Kaliningrad, Murmansk, and Arkhangelsk Oblasts. This year's state order for the production of animal and vegetable canned goods has not been fulfilled by the RSFSR Ministry of Agriculture and Food. Farms in the Maritime and Khabarovsk Krays and Amur Oblast are selling potatoes to military units at from 80 kopeks to R2 per kilogram (instead of 30 kopeks, as established by the RSFSR Council of Ministers as the top contract price). In all, throughout the Armed Forces an additional R490 million has been spent for potatoes alone.

Last year, we did not receive one-fifth of the winter suits needed for tank crews, one-third of cotton uniforms, and about 10 percent of underwear, in all 43 kinds of items. The situation is no better with petroleum products. Thus, the Rosnefteprodukt Concern has now failed to supply 200,000 tons of winter fuels. The monthly plans for deliveries of fuel at delivery points and petroleum

bases are being systematically frustrated. This year enterprises in the RSFSR have "frozen" 60,000 tons of gasoline for cars, 90,000 tons of diesel fuel, and more than 120,000 tons of aviation kerosene and failed to deliver it to the troops. In connection with the transfer of a large proportion of the medical product range to direct procurement, the military medical services have received only 10 kinds of items, out of 59 in the state order, through direct ties. Naturally, there have been shortages of blood substitutes, medical dressings, and even stretchers.

We also encounter the same problem when the leaders of many enterprises in the light, food, and petrochemical industries receive a state order and then demand help from the Ministry of Defense in carrying out reconstruction, the allocation of construction materials, transport facilities, and personnel. And these demands are made in the form of an ultimatum! Therefore, when analyzing the situation that has taken shape I come to this conclusion: Under the conditions of the transformation of the country's economy on the basis of market relations and enhancing the economic independence of producers, the process of insuring the combat readiness of the Armed Forces (before the economy is stabilized) will still need the state order for the main kinds of output, and also priority and mandatory deliveries for the Army and Navy.

It seems to me that the USSR presidential ukase "On Urgent Measures To Stabilize Economic Ties During the Fourth Quarter of 1990 and in 1991" was timely and necessary. This ukase directs state enterprises, associations, and organization, regardless of their departmental subordination and territorial location, to insure that existing economic ties are maintained and that contractual obligations are met. Because of the emergency nature of the situation the USSR President appealed to labor collectives at enterprises to place the process of concluding economic contracts under direct worker control, opposing departmental confusion, parochialism and group interests with organization, a businesslike approach, and a sense of responsibility to society.

[Chekmarev] Folk wisdom counsels this: Place your hopes in God but do not make mistakes...

[Arkhipov] That is quite true. And so our economic leaders and workers in the rear services must display more acumen and business initiative, and learn how to trade. We recently had a meeting on the procurement of potatoes and vegetables. Just about everyone has the same difficult conditions, the same weather conditions, the same social conditions. It is obvious from the reports from the local level that wherever the rear services in a district or fleet are headed by a person who is active, the results are better and the quality higher. This means that during the winter the troops will have to endure less adversity.

In short, we must all prepare ourselves for work under conditions of market relations. We must find and establish direct ties and conclude contracts now, not relying only on the center. If, for example, they are short of potatoes in Siberia they should travel to Belorussia or the central oblasts of Russia and talk to the people on the spot. It must be borne in mind that the present euphoria of the freebooter, and likewise the confusion that occurs during the transition to the market, will quickly pass. The producer and the supplier will have to deal with fierce competition and will have to seek out buyers. And the Army and Navy are reliable partners in the consumer market, and ties with them insure stability.

The production of agricultural and other output at enterprises of the Ministry of Defense must be raised up to a modern level. Already today it constitutes a solid contribution to the country's economy: This year, according to the preliminary estimates we have ourselves produced 119,000 tons of meat (live weight), more than 66,000 tons of milk, about 230 million eggs, 300,000 tons of grain, and 200,000 tons of potatoes and vegetables (with a total worth of R250 million). Or, putting it another way, we do not have to go to the country for meat for three months, for milk for the entire year, for eggs for seven months, and for vegetables for four months. In order to increase the share in total deliveries of foodstuffs even more significantly we must make provision for the active introduction of leading Soviet and foreign technologies and develop the material-technical base for military sovkhozes and private subsidiary farms, and perhaps also various kinds of small businesses when their commercial activity has been legalized.

One important avenue is the extensive use of the leasing of automotive and maritime transport and military transport aviation to move national economic freight. It is time that this be established on a legal basis, with all sums obtained from leasing being transferred to the Ministry of Defense. In addition, it is necessary to give military units greater economic independence in their financial-and-economic activity, and also provide user-fee services for the public. And it is many people's opinion that this activity should be exempt from state tax.

And of course, it is essential to organize a modern system to train and re-train personnel at the higher educational establishments of the Ministry of Defense to work under the conditions of a market economy.

[Chekmarev] Vladimir Mikhaylovich, now, on the threshold of the market, many people are concerned about poor social protection and low fixed incomes as prices rise, and about housing problems, the real persecution of military people, and the by no means empty threats—for more than 3,500 people have already suffered. Readers are asking this: Does the leadership not understand how hard the consequences of this present lack of constraint may be for the Army, and perhaps for the country?

[Arkhipov] I think that it does, although, perhaps we have still not reached the end of it. As far as I personally am concerned, this is the position that I take: The defenders of the motherland should be insured by state organs with all the conditions needed for fruitful service, a normal life, and proper leisure in the bosom of their families.

In general much is now being done in the interests of servicemen. This year there was a salary increase, not very significant, to be sure, but nevertheless it was a help. On the other hand, there was a significant increase in the sizes of pensions, and that, of course, is very important because in his old age a person is more defenseless against the vicissitudes of life. As cutbacks are made in the Armed Forces everything possible is being done not to infringe on the interests of the officers and warrant officers, who have given many years of military service.

The switch to the new form of clothing—more elegant and democratic and more in character with the character of military labor and today's fashion—has already been started in practice. From January yet another convenience will be introduced for officers and warrant officers and women serving in the Armed Forces: When they travel they will be issued with money instead of travel documents. Obviously this decision will be greeted with special satisfaction by those who love to travel by car.

In the present complex situation, military trade is being more active as it strives to do everything possible to provide servicemen with industrial goods and foodstuffs. We see as a special task that of supplying remote garrisons in the Polar regions, the Far North, and the Far East, and those who are serving far from inhabited places or on combat watch.

In the government they are now working on a set of social guarantees for servicemen and the members of their families under the conditions of market relations. They include first and foremost indexation of money allowances and pensions, that is, automatic increases in line with the price index and cost of living. Provision is being made for a mechanism to provide compensation payments in the Army and Navy in connection with the adoption of higher living standards for the public in the Union republics.

Taking into account the particularly difficult situation with respect to supplies of foodstuffs for servicemen and their families in some parts of the country, on 1 November this year the USSR Ministry of Defense adopted a decision to provide officers and warrant officers in the Baltic and Transcaucasian Military Districts and all personnel in all units of the branches of the Armed Forces with food rations in kind, and from 1 January 1991 this will be extended to their families.

[Chekmarev] Our readers are asking the question of whether under present conditions it is necessary to provide food rations for all officers and warrant officers since most of the time they are located in military facilities and there is nothing to buy there.

[Arkhipov] In my soul I am in favor of this, but we must be realists. Given the present calamitous situation in the economy, the state cannot insure such an opportunity. But the size of monetary compensation for food rations is being increased to R50, in line with present costs. I can say that looking ahead, next year an appreciable increase in wages is planned for all servicemen, including enlisted men and sergeants. From January 1991 new and considerably improved dietary norms will also be introduced for them.

In my opinion the time has also come to start thinking about reviewing the procedure for providing housing. One way to solve this problem is this: Throughout their service, servicemen will have part of their wages deducted for the construction of housing in a place of permanent residence that they choose at a populated point, and they receive the keys to their apartment or private house when they are transferred to the reserve or retire. A permanent fund must be established in the Ministry of Defense for service apartments in which servicemen and their families can live during the course of their service.

As far as the attacks on the Army are concerned, my opinion is unambiguous: The standards for the protection and security of servicemen should be underpinned legally. This is how it is, incidentally, in all civilized countries where people have self respect. I have no doubt that the same will be done here.

[Chekmarev] Thank you for the interview.

[Arkhipov] And thank you. I wish you success!

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Latvian Deputy Military Commissar on Ongoing Conscription

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[Article by Colonel V. Teymers, deputy military commissar of the Republic: "A Current Subject": "Common Sense Prevails—On the Fall-Winter Conscription Into the Army"]

[Text] The call-up is in January. Veterans of the military commissariats do not remember anything like it. No, this is not a normal occurrence, because the new training year has already begun for the troops, but the young replacements for units and subunits of the USSR Armed Forces and the MVD and KGB troops of the USSR have not all arrived as yet.

As is known from news releases of the USSR Ministry of Defense, in Armenia, Georgia, the Baltic Republics, and a number of other areas of the country, the fall conscription was fulfilled by only 10- 25 percent, which threatened the success of the recruitment for the Armed Forces of the USSR. This situation was the reason for the USSR President's Decree of December 1, 1990, and the subsequent decision of the USSR Minister of Defense to prolong the fall call-up to January 1991.

But let us return to our republic. As of December 31, 1990, the fall call-up had been fulfilled by only one-fourth. I shall not defend the workers of the military commissariats. They could work better. But the reasons for the failure of the call-up lie more deeply.

The main reason is due to the conflict between the republic's Law "On Alternative (Work) Service" and the USSR's Law "On Universal Military Obligation." Thus, the latest version of the Law of the Latvian Republic states that the sole basis for serving or not serving in the army lies simply in the desire of the draftee. I would say that no similar anarchy exists in any country of the world! If you want to—serve; if you do not want to—don't serve. In order to reinforce this legislative situation, the Supreme Soviet of the republic issued a decree that abrogates all articles of the Criminal and Administrative Codices of the Latvian SSR having to do with responsibility for refusing to perform military service. The Ministry of Internal Affairs, the prosecutor, and the local Soviets of the Latvian Republic are responsible for protecting citizens who have refused to serve in the Armed Forces of the USSR. It would be difficult to imagine a more thoroughly conceived legal basis for destroying the entire conscription system of drafting young men for military service.

And what does the Latvian Supreme Soviet propose instead? Alternative (Work) service. This service, in itself, seems to me to be a progressive step after the amendments adopted into the Law on Alternative Service on May 15, 1990, but it has turned into a legally accepted system for corrupting young men of draft age. Judge for yourselves. The absence of even an elementary

consideration for alternative service in the district commissariats and the refusal to cooperate with military commissariats has led to a situation whereby over 150,000 youths from the republic have refused both military and alternative service. Many of them do not work anywhere and are not studying. Up to now (beginning in May 1990), not a single one of them has been prosecuted under criminal law, even though refusal of alternative service is provided for in the law. Up to 25% of those already registered for alternative service do not, for all practical purposes, go through with it, because they do not show up where they are supposed to work.

And what about the rest of them? For the majority, being registered for alternative service has not brought about any changes in their work activities. For example, in agricultural districts practically all youths remained at work in their kolkhozes and sovkhozes, earning good money. Some, for example, G. Bruzulis from the Madonskiy district, E. Blums from the Ludzenskiy, V. Vanags from the Elgavskiy district, and many others contrive to "serve" while they are tenant farm workers. In the city we have an analogous picture different only in that instead of being tenant farm workers, they are cooperators, self-employed in the service sector, and so on.

As we can see, there is not even any talk about any kind of activity that is anything similar to army service in its difficulty or activity that is not prestigious.

Finally, up to 30% who are now performing alternative service do not have to do it at all. Due to their health or family situation (but they have no knowledge of this because they did not report to the military commissariats), they are not fit for service and could have received an exemption from the draft.

Everything described above has become the subject for a discussion both in the Supreme Soviet, as well as the Council of Ministers of the republic, due to the initiative of the republic's Military Commissariat and a number of deputies who are also servicemen. Events in Vilnius and the Riga barricades delayed these discussions for two weeks. The continuation of the discussion led to Decree #32 of the Latvian Council of Ministers, January 23, 1991, "On the Call-Up of Citizens of the Latvian Republic for Alternative (Work) or Active Military Service." In our view, however, an assessment of this decree is not simple. This decree sets the basis for organizing the work of district and city Councils to continue the conscription, even though the decree comes at least three months too late. Prior to the fall conscription, there was no such decree and the call-up was conducted solely through the efforts of the military commissariats. The decree provides the opportunity for opening up the conscription to those born in 1974 and assigning them to conscription districts, and this will be a precedent for subsequent draft calls. It requires executive committees to make certain that conscripts who declined one or the other service report to either the commissions on alternative service or to military commissariats. Finally, it

proposes to reregister everyone who participates in alternative service, including those who go through medical commissions. At the same time, the decree proposes that executive committees establish and improve ways to keep track of citizens who are performing alternative or military service, and designate persons who would be responsible for this registration. One can ask: Why do this if the registration existed and still exists in military commissariats? The answer is clear: It is to create within executive committees a structure parallel to those existing in military commissariats and later, to fully replace them.

Immediately after this decree had been enacted, local Soviets in a number of districts "commenced the work." But here and there, for example in the Elgavskiy, Bay-skiy, Ogrskiy, and a number of other districts, the creation of a parallel structure for maintaining military registration began earlier, but they received the green light only now for their initiative. Thus, the Ogrskiy district newspaper, OGRES VESTIS, on January 29th stated explicitly that the presidium of the district Council "considers the takeover of the military commissariat's functions to be one of its responsibilities for rescue and work services in the district." Here there is already a method for registering those obligated for military service and who will be subject to mobilization, as well as for registering equipment. The newly established organizations for military registration will probably include the recently created department, within the republic's Council of Ministers, headed by Yanis Bash-kers as director, who incidentally, is a former senior officer of the Soviet Army. Let the reader draw his own conclusions as to the value or harm of these new parallel militarized structures in stabilizing the situation in the republic, including relations with the army. I will say only that military commissariats have already begun to feel a negative attitude from a number of executive committees.

Meanwhile the fall conscription is continuing, incidentally, without any kind of force whatsoever, as was feared by certain public and even government leaders of the republic.

During January, around 300 youths were called in and sent to the military forces. Every third one is of Latvian nationality. All those called in are performing their service in units located in the Baltic Military District. I point out that the majority of them had been registered earlier for alternative service. It would appear that after all, common sense prevailed, among our young people and their parents.

Military, Alternative Service Registration in Latvia

91UM0418B Riga SOVETSKAYA LATVIYA
in Russian 29 Jan 91 p 2

[Unattributed article: "Official Section—On the Con-scription of Citizens of the Latvian Republic for Alter-native (Work) or Active Military Service"]

[Text] Having the goal of guaranteeing the conscription of citizens of the Latvian Republic for alternative (work) or active military service and registration of citizens born in 1974 with district executive committees and city executive committees (of cities in the republic) for alternative (work) service or registration for conscription in call-up centers of city and district military commis-sariats, and with the goal of securing reregistration of citizens going through alternative (work) service, the **Council of Ministers of the Latvian Republic, in its decree of January 23, 1991**, , in order to implement the mea-sures agreed upon in meetings of the leadership of the Supreme Soviet of the Latvian Republic and the Council of Ministers of the Latvian Republic with the leadership of the USSR Ministry of Defense, and in abiding with Article 61 of the Constitution (Basic Law) of the republic and the Law of the Latvian Republic "On Alternative (Work) Service" during the period between January through March 1991, has charged the district executive committees and city executive committees (of cities in the republic), with organizing and improving the regis-tration of citizens subject to call for alternative (work) service or military service and citizens who are now performing alternative (work) service; and to assign responsibility for registering persons for alternative (work) and active military service.

If citizens—the decree continues—who reach the age of eighteen years by December 31, 1990, as well as citizens whose conscription was postponed, have not begun their alternative (work) or active military service by January 1, 1991, it is necessary to ensure that these citizens report to the commissions on alternative (work) service, orga-nized within the structure of executive committees, or to conscription centers within the periods shown in notices or letters that they personally received; and further, to ensure that citizens born in 1974 register with the district executive committees and city executive committees (of cities in the republic) and be registered in the conscrip-tion centers of district (city) military commissariats; and further, to ensure the reregistration of citizens per-forming alternative (work) service, as well as to clarify the connection between the state of their health and the service which they are performing.

The Minister of Public Health is charged with the responsibility of organizing comprehensive medical examinations for citizens called for alternative (work) or military service, as well as citizens already performing alternative service, and to ensure that physician special-ists and middle medical personnel can be attracted to municipal (cities of the republic) and district medical commissions on the basis of work contracts. The work schedules of medical commissions should be coordi-nated with relevant district executive committees and city executive committees (of cities in the republic) and with military commissariats.

This decree confirms the establishment of the republic medical commission on verifying the state of health of citizens now performing alternative (work) service and those being called up for active military service.

It is also established that city (of cities in the republic) and district medical commissions, as well as the republic medical commission, will organize their work pursuant to requirements of the Law "On Universal Military Obligation" and the Law "On Alternative (Work) Service."

The republic's medical commission is charged with verifying the state of health of persons forced to leave their military units due to conditions that could be hazardous to their lives.

Kiev Military District Draft Problems Discussed

*PM0404135591 Moscow KRASNAYA ZVEZDA
in Russian 4 Apr 91 First Edition p 2*

[Report by UKRINFORM-TASS correspondent N. Zaika: "Alarming Figures"]

[Text] Kiev Military District, 3 Apr— In 1990 in those oblasts of the Ukraine where the district's troops are stationed over 2,000 young men were deemed unfit to

serve in the army in peace time for health reasons. The number of draftees with criminal convictions and of those who refuse to serve is increasing. These and other no less alarming facts were cited at an expanded session of the Kiev Military District military council devoted to the results of young people's preparation for military service and to the tasks of backing up the draft into the Army and Navy in 1991.

The report delivered by Lieutenant General V. Boriskin, the district chief of staff, noted that the course of the draft has been adversely affected by the anti-army campaign and shortcomings in the work of military commissariats and Voluntary Society for the Promotion of the Army, Aviation, and Navy organizations, in military-patriotic education, in predraft training, and in medical and health measures. Only individual explanatory work, the report stressed, will make it possible to assert in the awareness of every draftee the idea of the need for the unconditional fulfillment of laws and make it possible to hold the spring draft successfully.

**Kazakh, General Machine Building Ministry
Conversion Pact**

914A0484A Moscow KRASNAYA ZVEZDA in Russian
26 Feb 91 p 2

[Article by KRASNAYA ZVEZDA correspondent
Colonel A. Ladin: "The Conversion for Kazakhstan"]

[Text] The Baykonur spaceport is the main space harbor of our country. Kazakhstan President N. Nazarbayev and members of the republic's government recently visited the site. They met with O. Shishkin, minister of general machine building, with leading experts of space research, and with representatives of the USSR Ministry of Defense. They met to agree on terms for their direct cooperation under the new conditions.

Later both sides met in Alma-Ata for a more detailed discussion, after which they signed a program of economic and scientific and technical cooperation. This is what the story is about.

The technical and production aspects of the rocket and space complex have been shrouded in secrecy for years. Now we start learning that many of the modern technologies, materials, and pieces of equipment produced in our country are no worse than those made in other countries. The same, probably, is true not only of the Ministry of General Machine Building but also of other defense related industries. Now, in the process of the conversion, we have gained opportunities to share all this wealth with the entire national economy.

That was the subject of our conversation with Yu. Koptev, USSR Deputy Minister of General Machine Building.

"It would be wrong to think that once we started working within the conversion framework, we would begin to resemble the proverbial mountain which is waiting for Mohammed to come to it. It has been a long time since we outlined our proposals on cooperation with various industries. We sent lists of our proposed services, contracts, and supplies everywhere. We did not receive too many answers, though."

"Why is there such passivity?"

"On the one hand, our partners are experiencing an unstable financial situation. But there is also another factor: few managers have enough of the entrepreneurial spirit; they are not prepared or do not know how to work in a new manner."

"Did you feel this here, in Kazakhstan, also?"

"I would not say that. Kazakhstan's president and cabinet of ministers seriously intend to introduce scientific and technical achievements extensively in the national economy. We were given an extremely interested reception. Speaking of this, a similar meeting with our participation took place earlier in the Russian Federation."

"What concrete goals did you target to be realized in Kazakhstan?"

"Over 70 plants, design bureaus, and science and research institutes of the Ministry of General Machine Building are involved in the design and production of equipment for the confectionery, baking, yeast-producing, meat processing, and other branches of the industry."

According to a completed agreement, prosthetics centers will be opened in three cities in Kazakhstan, with Alma-Ata and Dzhezkazgan among them. Equipment for the centers will be supplied by the space agency. The main thing is that, since October 1988, Yu. Semenov, chief designer of the Energiya-Buran manned space complexes, has been in charge of a program which is helping to produce orthopedic prostheses. As early as this year 8,000 of these units will be supplied to Kazakhstan. The latest technologies, materials, and precision titanium casting are being used in their production. As a result the prostheses are no worse than foreign-made ones. The people in Alma-Ata also got interested in the processes of automatic welding and of hardening metal-cutting tools, and in rubberless stop valves for water mains.

As we were told by G. Yefremov, general manager of one of the science and production associations under the Ministry of General Machine Building, in 1992 they will start implementing their plan for a solar battery installation to provide electricity for remote shepherd villages.

S. Konyukhov, general manager for rocket, space, and satellite systems of the Yuzhnoye science and production association, told us that as early as this year they will install a wind-driven power plant, produced by them, in Alma-Ata Oblast. According to a signed agreement, they are supposed to design and produce similar, 1,250 kilowatt plants, for installation near the Dzungarian Gate, known for its constant winds.

I cannot leave unmentioned the joint space programs either. The republic's specialists showed great interest in the creation in Kazakhstan of a regional center which would receive, process, and issue to the public information on space. A new direct TV broadcasting complex is being designed which would include the Gals satellite.

As if continuing with the subject: "Space to Kazakhstan," USSR Deputy Minister of Communications Yu. Zubarev told me that a system of direct television broadcasting, Zharyk, had already been made for Kazakhstan. It was made possible through the mutual effort of enterprises of his ministry and of science and production associations of the Ministry of General Machine Building, with Academician M. Reshetnev as the chief designer for the system of space communications and television. The Zharyk system would employ the experimental channel of the Gorizont communications satellite. It consists of 10 ground receiving stations. Another 20 will be supplied before the end of the year.

In other words, the conversion of the defense industry can make a considerable contribution.

Sukhoi General Designer Simonov Interviewed

91UM0414A Moscow KRYLYA RODINY in Russian
No 12, Dec 90 pp 12-15

[Interview with M. Simonov, Sukhoi general designer, by KRYLYA RODINY special correspondent Valerii Ageyev: "Conversion for Us Boils Down to Aircraft"; date and place not given; first paragraph is KRYLYA RODINY introduction]

[Text] M. Simonov, general designer at the OKB [Special Design Bureau] imeni P.O. Sukhoi and a people's deputy, feels that conversion for him boils down to aircraft.

[KRYLYA RODINY] Mikhail Petrovich, what is new at the celebrated firm?

[Simonov] First, even more fame after the air shows in France, Australia, and Singapore has been acquired by our Su-27, Su-25, and Su-26M aircraft. The latter was purchased by the Americans. This is the first such case in the history of Soviet aircraft production.

Second, we have strengthened our international ties to foreign partners in Italy, England, Switzerland, Austria, and the USA. An example of such a business partnership was the signing in the middle of last year of a document dealing with joint efforts in research, development, and production of a supersonic aircraft offering a range greater than 8,000 kilometers. The American side consisted of the chairman of the board and chief executive officer of the aircraft construction firm Gulfstream Aerospace Corporation, Allen E. Paulson. The aircraft has initially been given the name of Gulfstream VI-Su.

The signing of this document was predetermined mainly by the world's new political thinking, conversion, and by the lack of small jet aircraft of the so-called "business class," intended for use by businessmen for whom the expression "time is money" always holds true and simply by especially impatient persons who for some reason must travel to Europe or return to America on the day they wish to return, without waiting almost 24 hours for, say, the Concorde.

Also of no little importance is the fact that these supersonic aircraft can get by using an ordinary takeoff strip, not one of superclass type. They (the aircraft) will be designed to carry 20 to 50 passengers.

The American firm's management came directly to us, since they knew of our painstaking and successful work on supersonic fighters, particularly the Su-27.

Plans call for building two types of jet aircraft: The first one—the S-21—is to be powered by two engines, will offer a 12-passenger capacity and range of about 7,000 kilometers; the second—the S-51, designed for greater carrying capacity and longer range, will be fitted with a

4-engine system to take care of its heavier weight. The turbojet engines for the miniliners will be made by the English engine firm of Rolls-Royce and the Soviet NPO [Scientific Production Association] Saturn imeni A. M. Lyulka, which is headed by General Designer V. M. Chepkin. These reliable engines will meet international requirements.

Another effort our enterprise has undertaken in the conversion area was the conclusion of another agreement, dealing with the development and production of light subsonic passenger aircraft with a capacity of from four to eight passengers, with the American firm Piper Aircraft Corporation. It seems to me that these aircraft can resolve the problem of light aircraft, something which is virtually absent in our country, and in addition can help polar expedition members, doctors, firefighting services, and agricultural workers, and in general all who have need for craft that are simple to fly, inexpensive to operate, and capable of taking off from any postage-stamp size field.

We also need the above craft and the supersonic types because we are learning how to work well and fast, and we will soon be able to work as productively as the Americans. I believe that that time will come. Then we also will have a need for fast and economical craft, something that must be designed and set up for production just now, so that we will not have to try to catch up with our more foresighted friends and competitors.

[KRYLYA RODINY] What other kinds of conversion are acceptable to you personally and to the OKB?

[Simonov] In spite of my constant insistence that conversion for us boils down to aircraft—civilian types, perhaps, but nonetheless aircraft—we are not ignoring the manufacture of nonmilitary products, the volume of which even now amounts to nearly 50 percent. Our serial aircraft plants are producing washing machines, refrigerators, and many other items.

This kind of outlook for business collaboration is also true for the Central Design Bureau for Hydrofoil Craft of Gorky, where the chief designer is V. V. Sokolov. The enterprise makes unusual surface-effect vehicles/watercraft or surface-effect aircraft, which are virtual aircraft. The zero aspect ratio wing with end plates possessing a floatation feature, the tail assembly, and motion of the craft proper are based on the use of the dynamic air cushion that is produced as the craft flies slightly above the surface of water or earth.

This results in a considerable increase in the aerodynamic efficiency, thus lowering the fuel consumption requirement with attendant extension of the range (by a factor of almost 2) and increase in payload.

The ground effect principle was formerly used to advantage by English pilots as they were homeward bound, especially in case of a low fuel supply or a damaged craft.

Also favorable is the fact that the surface-effect vehicle is a more ecological kind of river and even ocean-going transport craft.

Vessels of this type, weighing 140 to 400 tons, already exist. They describe the general configuration of a virtual ship.

Our purpose is to produce an aerodynamic surface-effect vessel in the true sense of the term. Its speed is comparable to that of an aircraft, attaining almost 500 kilometers per hour. A primary task of our joint union is to enhance it, by using modern aircraft materials processed by the extremely high technology available at our aircraft plants.

Surface-effect craft have elicited the interest of far-off Singapore. With a market interest, we can and will produce more efficient surface-effect craft for hauling and passenger applications, especially since we do have models to go on and the technology to produce the craft.

[KRYLYA RODINY] Mikhail Petrovich, a few words about the Su-27. The American Jane's yearly book on armaments named it the equivalent of the F-15 fighter. What can you tell us about that?

[Simonov] I can answer that by offering the following quote from the aviation journal AEROSVET: "The Su-27 is a real wonder... the Soviet answer to the F-15 third-generation fighter... possesses power characteristics of a fourth-generation fighter, but its capability of executing the "cobra" maneuver renders it a member of the fifth generation." I could stop here, but for clarity let me tell you some more. Yes, we came out to counter the F-15 with the Su-27, which was virtually the same as its American cousin. However, when it went into serial production and 10 units were produced, we learned that we could make a fighter that could offer better parameters all-round: maneuverability, rate of climb, controllability. We decided to go ahead and take this step. You probably have no idea of what it means to interrupt series production.

The originality of the approach to the design and layout of the Su-27 gave rise to completely new thinking. I will cite only one example of this unusual thinking. We could have extended the range by using additional fuel tanks. Had we done this, the aircraft would have lost maneuverability during takeoff and been deprived of the acceleration needed to rapidly proceed in the accomplishment of its mission. For this reason, we arranged fuel storage internally, this so successfully that we extended the range to almost 4,000 kilometers. Our test pilot, N. Sadovnikov, headed a crew that flew our experimental Su-27 non-stop a distance of 14,000 kilometers with only four inflight refuellings. The American F-15 fighter flying this distance would have required 15 inflight refuellings! Long-range aviation pilots were very happy to receive an escort aircraft offering this long range.

Another significant factor in our success was our always remembering that "a past remembered is a past forgotten." What we did was to borrow the fly-by-wire system from the experimental airplane Sotka, which in the middle of the 1970s was flown by Hero of the Soviet Union and Test Pilot V. S. Ilyushin of our OKB and Merited USSR Navigator N. A. Alferov. The system at that time was the only one of its kind in the world. I can describe it in layman's terms by saying that it did away entirely with all steel rods, brackets, and pivot elements that had been employed to transmit motion from the pilot to the control surfaces.

Special induction sensors aboard the Su-27 convert the mechanical motions into electrical signals that are synchronously sent to a computer; the latter, depending upon the flight conditions, provides information to activators that govern control surface boosters. This made it possible to effect a considerable aircraft weight reduction by virtue of eliminating the steel rods and pivot elements, and also by locating the extra fuel tanks or electronic apparatus in the fairing.

The use of the "remembered but forgotten past" and the original thinking applied to the perpetual problems of aviation—weight, range, speed, maneuverability—enabled us to produce a fighter of which it may be said without false pride that it is "a forerunner of aircraft of the future."

[KRYLYA RODINY] Now a few words about your OKB test pilots.

[Simonov] Our aircraft are flown by test pilots that we produce—in the firm. I can say without hesitation that we have come up with a method of molding a test pilot that differs somewhat from that used by, say, the LII [Flying Research Institute]. At first glance it seems to be very simple. It starts off by endowing the test pilot with the status of an equal partner, in that he from the day design work and drawings of the new craft are initiated participates in deciding the layout and disposition of assemblies and instruments in the cockpit; he is present during assembly of the airframe and takes an active part in eliminating any difficulties that may arise.

When we start flying, we become somewhat more particular as far as the flight test plan and actual testing are concerned; we also put more thought into carrying out the tasks.

In this connection, we require test pilots who exhibit original thinking and behavior during flight, but this requirement does not in any way do away with the need for precision and self-discipline on their part. For this reason, our firm does not hire military pilots and pilots from series-production aircraft plants. They—and I say this not to degrade them—are too stereotyped in their thinking and actions. We ask for skilled pilots from the DOSAAF [Voluntary Society for the Promotion of the Army, Aviation, and Navy].

The technique has been successful. That is why the whole world knows about test pilots such as our OKB's Hero of the Soviet Union V. Ilyushin and V. Pugachev, N. Sadovnikov, and test pilots Ye. Frolov and O. Tsoy.

[KRYLYA RODINY] Mikhail Petrovich, you are a USSR people's deputy from the USSR DOSAAF. What are you doing to popularize flying and other types of aerial sports?

[Simonov] If every designer were to produce even a single sports airplane the likes of the Su-26M, that would probably completely justify his activity as a deputy. I said that as a joke. Our OKB has produced in addition to the Su-26 the Su-28 jet trainer that flies about 1,000 kilometers an hour; it can be flown during the day and at night under all meteorological conditions, executing advanced aerobatic maneuvers without loss of altitude.

In addition, the boys at Industrial Training Combine No 2 of Frunzenskiy Rayon make, assemble, and fly BRO-11 gliders. They run around in carts they themselves make and fly radio-controlled model airplanes, in general enjoying exposure to aviation and technology. After they grow up, they come to our production shops and design bureaus as trained specialists who approach their work with affection. Generally speaking, if it were not for the flying club and its location at the famous Khodinskoye Field—one of the first Russian airfields—there would be no pilots.

I am sometimes chided for our OKB's selling Su-26 aircraft to foreign countries even though DOSAAF flying clubs still have not been provided with the craft. Let me tell you the following on that score. We intended to use the foreign exchange resulting from sales of the Su-26M to the USA to resolve three problems: acquire new computing equipment; purchase new molding and stretch presses to manufacture shaped wing and fuselage sections; and provide our laborers and white collar workers with high-quality imported goods. We unfortunately could not accomplish completely any one of those tasks, since we—the actual producers—received only 15 percent of the exchange value of each Su-26M. To keep our aircraft out of their market, our potential American competitors set up a substantial import duty barrier of 30 percent of each unit's cost, while the Soviet Government and Ministry of the Aviation Industry took away from us a sum almost three times greater than that.

We will continue to sell aircraft to foreign countries in spite of these discriminatory measures, since the aircraft are the face of our country, not only of our firm. Even though there are difficulties, with the yearly program set for our firm calling for the production of 12 units, we intend to sell another 20 units to foreign countries. Out of 125 units to be produced in the five-year period, 80 percent will go to the internal market. Incidentally, we now have eight units ready for shipment to flying clubs. I wish to state right now that the Su-26M is a demanding machine. You must possess a good amount of skill to fly it with confidence. In this connection, we probably

should give priority to the two-seat Su-29s, which are needed to train airplane crews. We estimate that it would take about 800 Su-26Ms and Su-29s to satisfy the demand. There is no way such an enormous number of aircraft could be produced by our firm. It would be necessary to have a plant specializing in the production of sports planes, one operating with economic accountability and granted complete economic independence. That is what I see as the most realistic way out of the existing situation.

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Baykonur Cosmodrome To Serve Civil Economy

91UM0574A Moscow IZVESTIYA in Russian
16 Apr 91 Union Edition p 2

[Article by IZVESTIYA special correspondent S. Leskov: "Earthly Takeoffs of the Cosmodrome: Conversion of the Baykonur Cosmodrome—Utopia or Reality?"]

[Text] The matter is old and now seems rather amusing, but the historical truth is that the present Baykonur is located dozens of kilometers from the famous cosmodrome. In the 1950's, when a place was being selected for the construction of missile launch sites, it seemed useful to muddle up our geography as much as possible for the purpose of secrecy. But the first, the real Baykonur, was soon forgotten, and those who needed to, calculated the location of the secret cosmodrome with clinical accuracy. This amusing episode reflects like a drop of water the situation around the Baykonur cosmodrome, whose problems for three and a half decades were discussed only behind heavily barred doors.

It would be a great exaggeration to say that the fresh breeze of perestroika has contributed to the prosperity of Baykonur in recent years. But now there looms a heretofore basically unfamiliar problem: How will the future of Baykonur unfold after the signing of the Union treaty, to whom will it belong, and will not the local inhabitants consider its presence on Kazakhstan lands burdensome and unwarranted.

The questions are not entirely rhetorical. Because the activity of another large scientific-technical and military installation, situated in Kazakhstan, the Semipalatinsk range, is provoking stormy protests from the public. Will not their wave also cover the cosmodrome?

However, there were grounds for Kazakhstan's claims on Baykonur. The powerful scientific-technical potential of the cosmodrome, where our best ministries, hundreds of enterprises of the "defense sector," leading design bureaus and institutes are represented, was virtually not used in any way for the resolution of the problems of the republic. "All of these years, the cosmodrome was practically a dependent of Kazakhstan," admits Yu.

Semenov, the general designer of the scientific production association Energiya. "They gave us everything that was necessary for life in Baykonur, but we gave back the minimum."

But does the space industry itself deserve reproach for this neglect? It operated according to the laws of the system, where everything was subordinated to vertical ties, to the center—but horizontal ties that feed the market economy were simply lacking. Only with the transition to the market will it become lawful to demand that the cosmodrome participate in improving the republic on whose territory it is situated. But is the space department capable of taking such a turn? In fact, the Baykonur cosmodrome has the very same pressing problem of conversion that is still moving along with great difficulty in all of the branches of the military-industrial complex.

N. Nazarbayev, the president of Kazakhstan, visited Baykonur a month ago. Several times, with apparent hope for support, he was asked questions that suggested a negative attitude toward the cosmodrome. Contrary to expectations, it became clear that the president of Kazakhstan, who is well-known for his broad outlook and ability to think in a forward-looking way, does not at all support the bullying and the attacks on the space department that are currently so fashionable. On the contrary, he evaluates the "right of residence" of the cosmodrome on the land of Kazakhstan as an exceptionally positive factor. I judge this also on the basis of a personal conversation with Nursultan Abishevich in which the broad plans of the government of Kazakhstan were disclosed for enlisting the achievements of our country's space science in the resolution of the most diverse problems of the republic.

This project has nothing in common with an impoverished and shortsighted conversion on the basis of "handyman repairs." Kazakhstan intends to use the potential of space science to raise the science-intensive branches of industry, the cultivation of progressive technologies and promising materials, and the development of computers and information science. Recently, with the aim of working up a contract, leaders of the space industry arrived in Alma-Ata—general designers Yu. Semenov, M. Reshetnev, and D. Polunin, and A. Galeev, the director of the Institute of Space Exploration of the Academy of Sciences of the USSR. Negotiations were conducted at Baykonur by N. Nazarbayev and Minister of General Machine Building O. Shishkin. The total volume of already coordinated work is reaching several hundred million rubles, and, in addition, a number of projects (for example, the placement of "windmills" in the Dzhangarskiy gorge) is in a stage of implementation. Fourteen directions of cooperation are planned, and special attention is being given to the development of communications systems and satellite television on the territory of the republic. Kazakhstan has been promised two of three channels on the very first Union satellite of the new television system "Gals." The agreement provides for the search for oil in Mangyshlak, taking stock of lands with the help of the "Resurs" satellite, and

the creation of critically short processing equipment for the agro-industrial complex...

The conversion of the cosmodrome affects not only specific practical projects—it also includes basic research and broad educational programs. A decision has been made to establish a Space Exploration Institute at the Kazakhstan Academy of Sciences. In the words of N. Nazarbayev, this institute will be engaged most of all in space monitoring and rational use of nature, which, in particular, will help in the elimination of the Aral catastrophe. A school for cosmonauts will be opened in the near future in Leninsk in which young people from the entire republic will be able to enroll on a competitive basis. In prospect is the opening in Alma Ata of a space-oriented Higher Educational Institution.

Also, finally, the question of flight into space by a representative of Kazakhstan is moving along, which has a lot of political significance. I recall that the managers of the detachment of cosmonauts complained that at one time A. Kunayev wanted to have "his own" cosmonaut, but the candidates who were recommended were completely unacceptable. Two qualified specialists are now studying in the Cosmonaut Training Center—Honored USSR Test Pilot and Hero of the Soviet Union Tokhtar Aubakirov and his colleague Talgat Musabayev. And this will not be a pleasure flight, but an expedition filled with scientific research.

What prompts the space department to establish contacts with the republic with such readiness? It is clear that it is not purely altruism—there are at least two serious reasons of an economic nature. In the event claims are filed for lease payments and the restoration of confiscated lands, according to estimates, this will take up 60-70 percent of the space budget. Moreover, given a sharp reduction in financing the industry, the readiness of Kazakhstan to cooperate in the area of advanced science-intensive technologies will make it possible for many enterprises to support their production and intellectual potential.

There are not only missile technology scientists and specialists working at Baykonur, but military builders as well. Of late, the volume of military orders is falling, and, of course, qualified personnel are being released. It appears that, for the first time in the entire history of Baykonur, no new technical facilities are being constructed, and there is only restoration of those that already exist. Inasmuch as military builders work on a cost accounting basis, the logic of events itself prompts them to take a more active part in the construction of facilities of a purely civilian significance, believes Major General V. Khrenov, the chief of the political department of construction at the Baykonur cosmodrome. There are a lot of examples like this now—the school for the Oktyabr state farm, the building for the Znaniye society in the oblast center of Kzyl Orda, and in Leninsk itself—a polyclinic, a large store, houses, and a water pipe, which is so necessary in the steppe.

But the qualifications of the military builders enable them to build not only standard structures. Take just the one underground city built at the launch complex of

Energiya and Buran. Five underground stories that reach to a depth of 30 meters! Intricate engineering projects also exist in the "civilian sector," and Major General V. Khrenov is right that it will be a complete waste if the store of knowledge of the military builders is not utilized, because departments did not get together.

These days mark the 30th anniversary of the first flight of man in outer space, but the holidays are passing—and routine workdays are arriving. So that our own space science can boast of achievements in the future also, it is necessary that the Baykonur cosmodrome join in the new economic relations, and in the new political situation.

Chemical Troops Dispute Kireyev on Weapons Destruction

91UM0606A Moscow MEGAPOLIS EXPRESS
in Russian No 6, 7 Feb 91 p 21

[Article by Professor I.B. Yevstafyev, a leading specialist in the USSR Ministry of Defense on the issue of chemical weapons destruction: "The Duty of the Servicemen Is to Preserve Weapons"]

[Text] Doctor of Technical Sciences Major General Igor Yevstafyev, a directorate chief in the USSR Ministry of Defense Chemical Troops, does not agree that the destruction of chemical weapons is the army's concern.

[The following reproduction of a letter on the letterhead of the chief of the USSR Ministry of Defense Chemical Troops, appears at the beginning of the article]

USSR Ministry of Defense	Incoming 056, 22 January 1991 [handwritten in the upper right-hand corner]
Chief of Chemical Troops 22 January 1991	Editor in chief newspaper MEGAPOLIS EXPRESS
No. 566/7/72	Comrade V.P. Volin,
City of Moscow, K-150	City of Moscow, 17/9 Ogarev Street

Esteemed Vladimir Petrovich!

The weekly MEGAPOLIS EXPRESS (No. 2, 1991) published the article "The Chemical Decline" by Doctor of Economic Sciences Aleksey Kireyev. The USSR Ministry of Defense welcomes the fact that your weekly raised the politically important and economically and technically complex issue of destroying the stocks of chemical weapons in keeping with international agreements signed by the USSR. We are interested in an extensive discussion of these issues by the public.

At the same time, the issue is reviewed in a lopsided and, as we see it, somewhat biased manner in the article by Aleksey Kireyev. We hope that the weekly MEGAPOLIS EXPRESS is interested in outlining various points of view on current events; after all, truth is born in debate. I am sending you an article by Professor I.B. Yevstafyev, a leading specialist in the USSR Ministry of Defense on the issue of the destruction of chemical weapons "The Truth About the Chemical Decline." I hope to see this article published in the forthcoming issue of your weekly.

Respectfully,

[Signed] S. Petrov

The article "The Chemical Decline" by Doctor of Economic Sciences Aleksey Kireyev in the weekly MEGAPOLIS EXPRESS (No. 2, 1991) ends with the following words: "Disarmament has not only a political, but also an economic dimension. As a result of the signing of the

Soviet-American agreement on the destruction and non-production of chemical weapons on 1 June 1990, an ominous chemical decline is looming for our economy, which is sick to begin with."

Military chemical scientists could agree with these words. However, at the same time we cannot agree with the many theses of the article which, instead of analyzing the problem objectively, once again casts slurs upon the army, accuses military scientists of sluggishness, erroneous scientific-technical policy, departmental thinking, and the desire "to put their hand in the coffers of the state budget." The article strives to create the impression that only the army needs the destruction of chemical weapons, and in the process the army strives to accomplish this in the worst way possible. Everything is turned upside down.

I would like to attempt to restore the truth.

First, the agreement dated 1 June 1990 was signed by the USSR president. Therefore, the decision to destroy chemical weapons is a state decision. The USSR Ministry of Defense is merely one of the possible executors of the political decisions made.

Let me note several purely technical aspects.

Long before the signing of the bilateral Soviet-American agreement, the Americans embarked on a program for destroying their chemical weapons and provided funding for it. By 1990, the United States had already spent more than \$2 billion to destroy chemical weapons. The United States did not merely turn this technical problem of its own into a Soviet-American one, but it also foisted on us expenditures going into billions at precisely the time when the state should be thrifty with every ruble.

Our stocks of chemical weapons were manufactured 20 years later than the U.S. stocks. Our munitions have a number of design peculiarities that predetermine longer times and greater safety in storage.

However, expenditures to solve the problems of improving the safety of long-term storage of chemical weapons are approximately 50 times smaller than the expected expenditures to destroy them.

This is why at this time there is no technical need to urgently destroy our chemical weapons.

Studies have shown that destruction of the chemical weapons will be a complex and costly problem, and will call for resolving a set of sociopolitical, organizational, cadre, scientific-technical, financial, and other issues.

It will be necessary to build full-scale industrial enterprises; the cost of their industrial zones alone goes into hundreds of millions of rubles, and that of their operation into billions. Such construction will call for concentrating material, human, and technical resources over four to five years with the annual use of more than 100 million rubles [R] in capital investment. Up to 3,000 or

4,000 specialists will work at these enterprises; creating and maintaining conditions for their life is a separate multimillion problem.

Someone is vigorously trying to have the USSR Ministry of Defense shoulder the burden of creating facilities for the destruction of chemical weapons. Apparently, in the course of this, they fail to take into account the fact that the volume of housing construction by the Ministry of Defense increases considerably beginning in 1991 in keeping with the Target Program for Social Welfare of the Servicemen, Their Families, and Individuals Discharged From Active Military Service.

Also, if we take into account the extremely complex condition of the economy of our country, restrictions on the capital investment resources allocated to the USSR Ministry of Defense, a considerable labor shortage, and the absence of necessary production facilities, it will become understandable that the performance of work involving the construction of facilities for destroying chemical weapons by the organizations of the USSR Ministry of Defense appears to be a quite complex additional task which is hardly gratifying.

I would like to address one more aspect that is important in principle.

It is hard to understand the echelons that assign to the army the task of destroying weapons, be this the destruction of missiles, tanks, or chemical weapons. This is tantamount to a doctor being made to kill people rather than cure them, making a builder destroy homes and bridges, or making a peasant plow under the harvest he has grown. The sacred duty of servicemen is to love their weapons, preserve them, and keep them continuously ready to accomplish the tasks of ensuring the defense capability of the country.

In our country, it is considered absolutely normal for the army to harvest crops and build roads, work at the enterprises of civilian ministries and settle interethnic conflicts, and in addition to all of this, destroy its own weapons. Even so, all of us wonder in unison: Why has the prestige of military service declined?

The second issue is that of technologies. By a decision of the Council of Ministers, the USSR Ministry of Defense has been designated as the contracting agency for the technologies of destroying chemical weapons in our country.

The generation of considerable amounts of various wastes, which themselves need to be destroyed or buried, in the course of applying the technologies offered to us for the destruction of chemical weapons is one of the main peculiarities of these technologies. In addition, the technologies offered are costly and energy-intensive; they call for sophisticated equipment and highly skilled personnel to service them.

The natural striving is to develop and implement the methods and technologies which will either make it

possible to destroy chemical weapons before the required deadlines at minimal expenditures and with a minimum of ecological burden on the environment, or to carry out the conversion of the stocks of chemical weapons and develop technologies that provide for the processing of toxic agents into raw and other materials for the production of national-economic output. Such is our principled position on the issue of technologies.

Toxic agents that are subject to destruction may be classified into two groups. First, there is lewisite; second, there are phosphororganic toxic agents: sarin, soman, and VX.

Let us begin with the issue of destroying lewisite. The USSR Ministry of Defense rejected the technologies of lewisite destruction offered to us which generate stocks, the volume of which exceeds the volume of destroyed lewisite by almost one order of magnitude. We believe that these technologies are not only cost-ineffective, but ecologically criminal because they put serious ecological pressure on the natural environment.

In our opinion, technologies which make it possible to obtain high-purity arsenic from lewisite are the most feasible.

Arsenic is used in the production of semiconductor materials and integrated circuits, special glass and fiber optics, growing monocrystals for lasers, for the needs of film electronics, and for producing the alloys of nonferrous metals with specific properties.

Since all arsenic compounds are extremely toxic and highly biologically active, they are also used in agriculture to control pests and for medical purposes; they are added to paints, which is supposed to prevent marine growth on the bottoms of vessels.

The USSR Ministry of Defense has fully supported research into the conversion of the available stocks of lewisite, taking economic and ecological aspects into account.

The issue of perfecting technologies for processing lewisite into high-purity arsenic figures prominently in the scientific and research work currently under way. Several scientific collectives of the USSR Ministry of the Petroleum Refining and Petrochemical Industry, the USSR Ministry of Health, the USSR Ministry of Geology, and scientists from the Saratov State University imeni N.G. Chernyshevskiy are being used for this work.

Now about the issues of destroying sarin, soman, and VX.

It is suggested that we conduct the destruction of phosphororganic toxic agents using a technology which presupposes the disassembling [rassnaryazhenie] of munitions, chemical detoxication of the toxic agents, destruction of the stocks generated, and the burial of solid waste.

The technology of direct incineration of phosphororganic toxic agents implemented in the United States is advantageous in that this method may be used to destroy not only toxic agents but also toxic industrial wastes, substandard pesticides and herbicides, that is, the conversion of such facilities themselves for use in the national economy is possible.

The issue of waste destruction is very acute indeed in our country. Even now between 40,000 and 45,000 tons of pesticides and herbicides whose storage life has expired, including about 12,000 tons of phosphororganic and chloroorganic compounds, qualify for destruction.

After this task is accomplished, it will be necessary to destroy annually between 1,000 and 1,500 tons of newly produced compounds, mainly phosphororganic, and sulfur and nitrogen compounds.

However, the most lucrative attempt is to find a way to convert phosphororganic compounds directly into products for the national economy.

I would like to note repeated presentations by Deputy Chief of the Chemical Troops Academician A. Kuntsevich containing proposals for extensive work by industry on technologies for the conversion of sarin and soman. It is hard to name an echelon to which such proposals have not been submitted. On the initiative of A. Kuntsevich, a competition was held at the USSR Academy of Sciences in search of alternative technologies. Despite the lack of support, the USSR Ministry of Defense has ordered several scientific-research projects in search of technologies for the conversion of phosphororganic compounds for 1990 and 1991.

In the course of the discussion of the USSR budget for 1991, it was announced at a session of the USSR Supreme Soviet that R55 million were allocated for conducting research and development work on the issue of destroying chemical weapons. The USSR Ministry of Defense proposes to allocate up to R16 million from the above for alternative technologies, including those supporting conversion.

Nonetheless, the main problem with regard to the issue of utilizing phosphororganic compounds is psychological rather than technical. This is the problem of a psychological barrier to using national economic products obtained from highly toxic compounds in everyday life. Will consumers buy these products even in the environment of our all-encompassing shortages?

A sector of the national economy needs to be found in which the products from the conversion of phosphororganic compounds would be used precisely as toxic compounds, for example, as a formulation for impregnating wood in order to protect it from rotting.

Glasnost with regard to the issue of destruction facilitated the receipt by the USSR Ministry of Defense of

quite a number of proposals regarding destruction technologies from scientific collectives which have never worked on this before.

Original, unconventional approaches to the problem are the most interesting, for example, the use of liquid-propellant rocket engines, the energy of a nuclear explosion, microbiological methods, and the utilization of stocks by injecting them into deep geological structures.

It may be asserted that if adequate financing is available original methods for the destruction of chemical weapons may be developed which will make it possible for the country to save hundreds of thousands of rubles in the future. A miser pays twice. Saving funds on scientific research and studies at present and the monopolization of such work will unavoidably bring about serious economic outlays in the future.

We have no doubt that the issue of the conversion of chemical weapons will finally be resolved from the technical point of view. However, the following issue will arise—where are such plants to be built? We believe that neither the USSR Ministry of Defense, nor any other ministry or department is able, or has the right, to resolve the issue of siting such facilities. This is an issue for the government; prior to this, it is necessary to set forth the legal foundation for siting such particularly dangerous installations in our country and to adopt a pertinent law.

Such laws exist throughout the civilized world. Thus, the U.S. Congress adopted a law on the destruction of obsolete chemical weapons as early as 1985. In September 1988, the U.S. Congress set by law 30 April 1997 as the date for completing the destruction of chemical weapons in the United States. The issue of coordinating the sites for the destruction of chemical weapons with environmental-protection organs is also regulated by legislation.

In our country, there is no legal foundation of any kind for such serious measures. We will not succeed in resolving the issue of the destruction of chemical weapons on a large scale until legislative problems are solved; everything will be reduced to yet another cycle of blaming the army for undermining the state economically.

A lot depends in this matter on the position of Russia. After all, all stocks of chemical weapons are located within the territory of Russia, and these weapons will have to be destroyed within the territory of Russia. Unfortunately, the undertaking has not advanced past the stage of general discussions in the RSFSR [Russian Soviet Federated Socialist Republic] State Committee for Public Security and Cooperation With the USSR Ministry of Defense. It is a pity, because an opportunity to arrive at quite unconventional ways to solve this problem opened up in the course of these discussions.

In summation, I would like to stress once again how complex the problem is with which our country was

presented after the signing of the bilateral Soviet-American agreement on 1 June 1990. It is becoming clear that superficially spectacular political decisions in the sphere of disarmament call for corresponding legislative and organizational economic measures, as well as outlays going into billions. If the USSR Supreme Soviet approves the agreement signed, these measures will have

to be implemented against the background of the current sociopolitical and economic problems of our state.

EDITORIAL NOTE. MEGAPOLIS EXPRESS is prepared to offer its pages to specialists, officials, and all concerned persons to take part in a discussion concerning the issue of chemical disarmament.

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